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COMMENTS OF THE COUNCIL OF INDUSTRIAL BOILER OWNERS
on
EPA Proposed Rule
Identification of Nonhazardous Secondary Materials That Are Solid Waste
75 FR 31844, EPA-HQ-RCRA-2008-0329
August 3, 2010

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The Council of Industrial Boiler Owners (CIBO) appreciates the opportunity to comment on EPA's proposed rule on the definition of nonhazardous secondary materials under RCRA for purposes of whether a boiler or other unit burning nonhazardous secondary materials is an affected unit covered under either the § 112 MACT rules or the § 129 CISWI rule.

CIBO is a broad-based association of industrial boiler owners, architect-engineers, related equipment manufacturers, and University affiliates with over 100 members representing 20 major industrial sectors. CIBO members have facilities in every region of the country and a representative distribution of almost every type of boiler and fuel combination currently in operation. CIBO was formed in 1978 to promote the exchange of information within the industry and between industry and government relating to energy and environmental equipment, technology, operations, policies, law and regulations affecting industrial boilers. Since its formation, CIBO has been active in the development of technically sound, reasonable, cost-effective energy and environmental regulations for industrial boilers. CIBO supports regulatory programs that provide industry with enough flexibility to modernize effectively and without penalty - the nation's aging energy infrastructure, as modernization is the key to cost-effective environmental protection.

GENERAL COMMENTS

CIBO represents industrial energy consumers and producers - contributors to the U.S. economy that directly depend on energy to run manufacturing processes, maintain workforces, produce and distribute goods in commerce, and participate in multiple other ways in the U.S. economy. CIBO promotes efficient and effective fuel use and the need to find and develop new fuel sources to maintain the energy base of our country and sustain our nation's industrial base in an environmentally responsible way. Secondary materials used as fuels are viable and heavily relied on by many industrial sectors and energy producers.

CIBO supports EPA in developing a regulatory approach that maximizes the usefulness of secondary materials in production, reducing or eliminating waste, conserving energy, and reducing harmful air emissions within the context of limited energy resources, global competition, national security needs, high and volatile energy prices, the need to maintain and add meaningful jobs, and the likelihood of climate change policy implementation.

I. Congress has promoted alternative domestic energy sources, and highly subsidizes the continuing development of new alternative fuel sources and technologies capable of utilizing these fuels.

Since at least the 1970's, Congress has been concerned about the nation's dependence on imported fuels and Congress has made fuel diversity a key element of national energy policy. More recently, in the Energy Policy Act of 2005 (EPAct), Congress recommitted the nation to

"promoting diversity of energy supply," "decreasing the dependence of the United States on foreign energy supplies," and "improving the energy security of the United States."[1] Congress has also heavily subsidized the development of technology to broaden our ability to use alternative domestically available fuels. In 2007, in the Energy Independence and Security Act (EISA), Congress again emphasized the need for increased energy efficiency and expanded use of available energy at the nation's industrial facilities.[2]

In the Resource Recovery Act of 1970, Congress emphasized the recovery of materials and energy from solid wastes.[3] In 1976, Congress broadened federal support for emerging technologies for resource recovery under the Resource Conservation and Recovery Act (RCRA).[4] Congress knew of the technological capability to recover energy from waste, and expressly encouraged the development and use of that technology.[5] Numerous Congressional hearings have been dedicated to finding ways to find new domestic sources of energy, including the use of biomass, used oil, solid waste, sludge and biosolids, and other materials as fuel. Renewable energy and energy efficiency were the focus of more than 300 bills introduced in the 111th Congress.

Over the years, EPA has interpreted RCRA in a way that achieves Congress's clearly stated goals. In the present rulemaking, EPA must balance the goals of RCRA and the Clean Air Act (CAA). CIBO recognizes those efforts and supports EPA's effort to interpret these statutes as mutually reinforcing rather than as conflicting. However, the proposed rule will do much to undermine RCRA obligations and policy objectives without corresponding CAA benefit.

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[1] Energy Policy Act of 2005, Pub. L. No. 109-58. 119 Stat. 594.§§908(a)(2)-(4).

Congress established these goals in the EPAct:

(a) In General - In order to achieve the purposes of this title, the Secretary shall conduct a balanced set of programs of energy research, development, demonstration, and commercial application with the general goals of

(1) increasing the efficiency of all energy intensive sectors through conservation and improved technologies;

(2) promoting diversity of energy supply;

(3) decreasing the dependence of the United States on foreign energy supplies;

(4) improving the energy security of the United States; and

(5) decreasing the environmental impact of energy-related activities.

[2] Energy Independence and Security Act of 2007, Pub. L. 110-140, 121 Stat. 1492, §§ 451 to 453.

[3] Resource Recovery Act of 1970, Pub. L. No. 91-512, 84 Stat. 1227 (codified as amended at 42 U.S.C. §§ 6901 to 6992k (2006)) (Section 205(a)(1) directs the Secretary to study the "means of recovering materials and energy from solid waste.").

[4] Pub. L. No. 94-580, 90 Stat. 2795 (codified as amended at 42 U.S.C. §§ 6901 to 6992k (2006). The objectives of the Act include "establishing a cooperative effort among the Federal, State, and local governments and private enterprise in order to recover valuable materials and energy from solid waste." § 6902(a)(11).

[5] See 42 U.S.C. § 6901(d) ("Congress finds with respect to energy that (1) solid waste represents a potential source of solid fuel, oil, or gas that can be converted into energy; (2) the need exists to develop alternative energy sources for public and private consumption in order to reduce our dependence on such sources as petroleum products, natural gas, nuclear and hydroelectric generation; and (3) technology exists to produce usable energy from solid waste.")

Congress has also clearly stated its goals regarding renewable fuels standards, with a requirement for 36 billion gallons by 2022. These goals necessarily will rely on new processes for producing this fuel, and those processes result in secondary materials that must be burned for energy recovery as part of the economic justification for the facilities. EPA regulatory approaches must not prevent or discourage development of new processes which can lead to lower cost biofuel production.

CIBO members rely on a wide range of alternative fuels, including for example, biomass fuels, tire-derived fuel (TDF) (chipped tires with substantial metal removal), coal refuse and on-spec used oil. Facilities utilize these fuels due to the resulting energy and environmental benefits, made possible through technology and encouraged by federal and state policies. Several of these fuels are highlighted below.

Protection of the environment need not and should not disincentivize or indirectly curtail the use of any available alternative energy sources.

II. Congress has promoted environmentally sound resource conservation through recovery and use of secondary materials for beneficial purposes such as fuels.

The improper categorization of boilers under § 129 will widely result in the abandonment of alternative fuels. This inevitable reaction by companies unwilling to have their boilers redefined as incinerators will yield negative environmental impacts, as often such fuels directly benefit the environment or offer other environmental tradeoffs that are more difficult to address than air emissions.

For example, some biomass energy is routinely recovered from residuals of the production of wood products where resins are utilized to bond the wood materials. Use of such biomass as fuel directly reduces the greenhouse gas emissions of the facility because it supplants fossil fuel with a CO2-neutral fuel. Further, if these materials are not burned they are likely to be landfilled, where they will decompose over time and create methane, a potent greenhouse gas. And the plants that utilize resinated biomass residuals are designed to do so from the start, and could not operate economically without the ability to combust these materials. It is axiomatic that EPA's solid waste definition should not include such biomass products because they have a long history of use as fuel by well established industrial sectors, i.e., they are traditional fuels. Biomass is the largest renewable energy sector, providing 49% of the nation's renewable energy supply. In the forest products industry, biomass provides 64% of the industry's energy needs in its manufacturing operations. The U.S. Energy Information Administration predicts biofuels consumption (ethanol and biodiesel) will increase substantially from current levels.

Another example - the use of coal refuse (presently included in the definition of "coal" 40 CFR § 60.41Da) for electricity generation - provides different but equally significant environmental benefits. Besides yielding coal, surface coal mining operations produce partings and other carbonaceous material (coal refuse) that can be used as a fuel. Facilities were constructed to produce power from identified deposits of coal refuse and eliminate the environmental impacts and potential problems associated with the mismanagement of these materials. Those facilities utilize fuel that is remined, processed to improve fuel characteristics that meet the plant's requirements, blended and delivered to it as a fuel from coal refuse sites of different ages. As a

result of the this reclamation activity, coal refuse sites have been eliminated, and the land has been reclaimed, vegetated and returned to productive uses, improving the overall environmental quality of the site and eliminating future sources of air pollution if they were to ignite and burn. There is no more environmentally protective and beneficial application for this material than as a fuel source.

Other materials used as fuels share some of these same qualities. For the most part, environmental regulations allow for the use of residuals, byproducts and other secondary material fuels. However, federal and state regulators often do not fully evaluate or value the collateral environmental benefits of these alternative fuels when standards are proposed and adopted. In addition, regulators sometimes make incorrect assumptions about the achievability of emission reductions by certain technologies, without fully assessing the viability of such technologies with the full range of available fuels and equipment types. As energy markets tighten and dependence on alternative fuels increases, regulators will need to fully account for the energy value of alternative fuels, and accommodate them in assessing technologies and setting environmental standards. By ensuring the alternative fuels remain classified as fuel and not as solid waste, the utilization of these materials as fuel is enhanced and allows for the expansion of the use of these and similar materials and the recovery of the energy. In addition, the reduction in volume of these materials and their impacts on the environment if instead they were left unused, are desirable collateral benefits of their use as fuels.

The key to increasing the use of alternative fuels is the development and deployment of new and revised technologies that increase the efficiency of using such fuels and reduce their environmental footprint. Environmental regulations that inhibit the continued use of alternative fuels will likewise inhibit the development of technology and reduce the potential for economic growth and retention/formation of high value jobs.

III. The distinctions between incinerators and boilers are significant and ignoring those differences gains nothing in environmental protection.

As noted by EPA in the proposed rule Preamble, § 112 and § 129 differ substantially:

> Although CAA section 129 "establishes emission requirements virtually identical to section [112's]," *Nat'l Lime Ass'n v. EPA*, 233 F.3d at 631, the two sections differ in three primary respects. First, CAA section 112 requires that MACT standards be established for major sources of HAP emissions, but provides discretionary authority to establish MACT standards for area sources of HAP emissions. On the other hand, the CAA section 129 MACT standards apply across the board to all solid waste incineration units in a given category regardless of size. Second, CAA section 129 requires that emission standards be set for specific HAP and certain pollutants that are not classified as CAA section 112 HAP. Specifically, CAA section 129 requires numeric emission limitations for the following nine pollutants: Cadmium, carbon monoxide, dioxins/furans, hydrogen chloride, lead, mercury, NOX, particulate matter (total and fine), opacity (as appropriate), and SO2. The CAA section 129 pollutants listed above represent the minimum that must be regulated; EPA has the discretion to establish standards for other pollutants as well. Third, CAA section 129 includes

> requirements for operator training, pre-construction site assessments, and monitoring that are not included in CAA section 112. See CAA section 129(a)(3), (c) and (d). Rather, CAA section 112's implicit authority and CAA sections 113 and 114's explicit authority is relied upon to include provisions as necessary to assure compliance with and enforcement of the emission limitations. It is important to note that CAA section 129(h)(2) specifies that no solid waste incineration unit subject to the performance standards under CAA sections 111 and 129 shall be subject to the standards under CAA section 112(d).

75 FR 31849. The segregation of boilers from conventional incinerators in regulations by Congress was not accidental. Section 129 clearly imposes significantly greater regulatory burdens, which are not appropriate or necessary for boilers. If EPA defines "solid waste" in a manner that would force boilers into the incinerator category, most of those boilers will decrease their reliance on alternative energy sources to avoid becoming subject to the incinerator rules. This is the least-desirable outcome for the sources, for national energy goals and for the environment.

Within the context of the substantial differences between boilers and incinerators, several important points need be made.

First, it is important to note that the environment will be fully protected from hazardous air pollutants regardless of whether a unit is regulated under § 112 as a boiler or under § 129 as an incinerator. Section 112 standards are set based on emission data from boilers in each subcategory. Emission data are developed during testing conducted according to highly defined protocols. As such, data reflect hazardous air pollutant emissions from any alternative fuels. By way of particulates or total selected metals standards, any HAP heavy metals will be covered. Sources have a CO limit as a surrogate to control hydrocarbon (organic HAP) emissions. If the fuel is halogenated, it is covered by an HCl limit. Mercury is regulated separately from other metals under the MACT program. Further, standards set under § 112(f) (residual risk) provide even greater assurance that MACT standards are protective of human health and the environment. In addition to MACT standards, State Implementation Plans require that all § 112 sources meet emission standards for criteria air pollutants to ensure National Ambient Air Quality Standards are met in each specific location. Therefore, it is not necessary to regulate boilers under § 129 to ensure that they are subject to the criteria pollutant emission standards included in the § 129 CISWI regulations (sulfur dioxide, nitrogen oxides).

The critical point is this: the fear of excessive HAP emissions as compared to emissions from "traditional" fuels is not warranted because the § 112 standards limit HAPS from alternative fuels. Therefore, there is no need to regulate a unit under § 129 to ensure that it will meet stringent environmental protection from HAP emissions.

Second, due to the inherent differences between incinerators and boilers, § 129 may subject these boilers reclassified as incinerators to emissions standards that may be unrepresentative and too stringent for boilers to meet. Industrial boilers are very different than conventional incinerators in design and function. An incinerator's primary function is to destroy materials; any additional functions (e.g., production of energy) are supplemental. Incinerators are often designed to accommodate a wide variety of feeds. For example, they are typically refractory

lined and are often equipped with quench chambers and wet scrubbing and a neutralizing agent (e.g., caustic) of some kind that allows them to burn wastes with high levels of halogens (chlorine, bromine, fluorine) and sulfur. Boilers operate in exactly the opposite fashion: a boiler's main function is to power a manufacturing or energy production process efficiently; combustion of a wide variety of fuels is not consistent with this primary function. For example, the boiler and downstream air pollution control equipment are often not equipped to manage feeds with high levels of halogens or sulfur due to corrosion concerns in the boiler and downstream equipment. Further, the boiler is designed to efficiently burn a primary fuel or fuels (e.g., coal (bituminous, sub-bituminous, lignite), oil, gaseous fuels, biomass, or combinations of these fuels) to generate steam, hot water, or some other heat transfer medium. Use of secondary materials is often a minor portion of the feed such that emissions are dominated by the primary fuels. These inherent design and operation differences result in different emissions characteristics for incinerators compared to boilers. EPA must recognize these inherent differences and establish rules that appropriately differentiate between those types of units and fuels based on emissions levels actually achieved by those units.

Because § 129 standards are based on the best performing 12% of sources, if both incinerators and boilers are included in the same subcategory, the potential implication is that an incinerator's emissions characteristics could set the baseline for emissions standards; most importantly, incinerators can burn materials that do not contain any of the constituents leading to the emissions being limited, such as S, Cl, Hg, etc. If the boiler cannot meet those limits, it will be compelled to abandon the use of alternative fuels for the sole purpose of retaining its § 112 boiler designation. For example, the emission standard for sulfur dioxide shown in the current NSPS 40 CFR § 60 Subpart CCCC and DDDD for incinerators is 20 ppmvd and the proposed CCCC and DDDD energy recovery unit SO2 limit is 4.1 ppmvd. No coal-fired boiler, even one equipped with a spray dryer absorber and fabric filter, could meet these standards. Therefore, a source with a coal-fired boiler would have to cease burning secondary materials for energy recovery unless EPA classifies this material as a fuel instead of solid waste. Quite likely, the result is that more coal will be mined and burned, more air emissions (including CO2) will be emitted from the boiler as a result, and the source will pay for this additional coal and pay to have the secondary material incinerated or landfilled. At a minimum, EPA will need to establish new additional subcategories of energy recovery sources based on primary fuel type and determine appropriate attainable emissions limits for those subcategories.

The relative size of a conventional incinerator versus a boiler further complicates a boiler's ability to meet standards set on the basis of incinerator emissions. Most incinerators are small relative to a major HAP source industrial boilers, and their rated heat input capacities are roughly about 10% or less than that of a boiler. For example, based on the recently posted Boiler MACT survey database, there are about 500 coal-fired boilers in the dataset with an average heat input rating of 300 MMBtu/hr. By comparison, typical conventional incinerators located at manufacturing sites (not commercial units) would be in the range of 10-50 MMBtu/hr. These factors greatly lower the capital cost and justifiable affordability of emission controls for incinerators relative to boilers. If boilers are immediately required to meet the same emission standards as those applicable to incinerators, boilers will face an infeasible cost impact to retrofit a facility to meet standards applicable to a vastly different type of unit. Faced with those impossibilities, CIBO anticipates that boiler owners/operators will cease to utilize alternative fuels for the sake of remaining in the boiler category and avoiding being categorized incorrectly

as an incinerator. For any of these complex reasons, boilers will likely be forced to abandon use of alternative fuels and will opt to dispose of energy-rich materials as waste. This outcome would be unnecessary and detrimental from national environmental, economic and energy perspectives.

Third, other elements of § 129 - not directly related to emission standards - also underlie the concern of boiler owner/operators that their units may be recategorized as incinerators. Section 129 imposes onerous operational burdens on sources that add cost but provide no additional environmental protection. These burdens include incinerator operator certification, continuous presence on-site by certified operators, alternative siting analyses for new units, and much more involved and expensive source testing and establishment of operating parameter limits. Traditionally, these tests that are conducted on incinerators cost on the order of hundreds of thousands of dollars instead of on the order of tens of thousands of dollars typical of boiler stack testing. These provisions were clearly intended by Congress to apply to units traditionally understood to be "incinerators." They are simply not appropriate, duplicative and unnecessary to the safe operation of a traditional boiler and to ensure that it is capable of providing full environmental protection. Further, with every additional regulatory requirement comes increased risk of noncompliance. Because regulators treat even minor paperwork mistakes as "environmental" deviations and possibly violations, sources will logically seek to avoid additional risk of noncompliance, particularly where such noncompliance cannot be justified for operational or environmental reasons.

Fourth, fuel costs are affected by standards and emission controls. Alternative fuels are often economically beneficial. If the fuel is not competitively priced, it will not remain a viable source of energy. Industrial and institutional plants must compete, very often in a global marketplace. As with any cost, fuel must be affordable for the plant to buy it. The cost of fuel is based not only on its delivered cost, but also on the cost of the equipment and processes necessary to utilize or combust it. If it costs more to burn secondary materials for heat and power, not because the material itself is costly but because the combustion equipment is more costly, other fuels will be used. Thus, even if one could argue that a boiler retrofitted with the right equipment could meet stringent incinerator based criteria pollutant standards, the cost of such a retrofit could be so exorbitant that it would not be reasonable to undertake. Given the current global financial circumstances, the feasibility for any company to finance retrofits and other capital improvements may be crucial to the company's or facility's continuing existence. A source may abandon use of secondary material fuels in favor of more traditional fossil fuels if unnecessary or excessive regulations of such fuels are imposed.

Fifth, the greater the uncertainty regarding what constitutes a waste, the more likely sources are to abandon reliance on alternative fuels that may be construed down the road by a regulator as a waste. EPA attempts to draw clear lines and create a process to draw the lines between waste and fuel in its rulemaking, which CIBO appreciates. Nevertheless, a CAA rule relying on RCRA waste definitions is inherently complicated and risk-laden. At present, sources seeking air permits coordinate with State air program officers. If not properly crafted, this rule could require sources also to coordinate with State RCRA program officers, increasing the time and effort for the source to obtain a permit and maintain compliance. Further complicating the process are the overlapping roles of EPA and State RCRA programs for implementing RCRA. EPA should precisely spell out the roles of both federal and State officers in its Final Rule. The goal should be to ease compliance requirements and expose and eliminate any areas of duplicative regulatory

coverage. If waste designations lack clarity or case-specific determinations are too complicated, or implicate too much additional risk of noncompliance, sources will likely abandon use of secondary materials as fuel. Environmental protection need not lead to this undesirable outcome.

IV. The proposed rule calls into question the longstanding RCRA principle that recycling (including energy recovery) of solid waste on-site does not constitute discard, fundamentally changing materials management across all categories of regulated facilities.

Under present RCRA principles, if a nonhazardous secondary material has remained on-site, then it cannot be defined as having been discarded, and thus cannot be classified as waste. Courts have consistently held that if a material is not actually abandoned or thrown away, then it has not been legally discarded. *See Am. Mining Congress v. EPA*, 824 F.2d 1177, 1188-89 (D.C. Cir. 1987) (holding that a person has not disposed of, thrown away, or abandoned a material, it is not discarded, even if it is no longer useful in its original capacity) *and Ass'n of Battery Recyclers v. EPA*, 208 F.3d 1047, 1051 (D.C. Cir. 2000) (holding that Congress unambiguously expressed its intent that 'solid waste' be limited to materials that are 'discarded' by virtue of being disposed of, abandoned, or thrown away). Classifying nonhazardous secondary materials that have remained on-site as waste is not only inconsistent with regulations, but also with existing case law.

Thus, under present RCRA requirements for hazardous waste in Subpart C, if a material is generated and used on site or is otherwise not discarded, the material is not a solid waste. Yet, in this proposal, EPA defines all nonhazardous secondary materials that are combusted – including those that have not been discarded - to be solid waste. Thus, for anything combusted other than traditional fuel, even if the nonhazardous secondary material has *not* been discarded and is managed within the control of the generator, it must *also* meet *all* three of EPA's proposed legitimacy criteria; otherwise, according to this proposal, the material is a solid waste. Here, EPA proposes to define all nonhazardous secondary materials that are combusted – including those that have not been discarded - to be solid wastes *unless* the legitimacy criteria are met. EPA should not require nonhazardous secondary materials that have *not* been discarded to meet additional legitimacy criteria that were developed for hazardous waste.

The legitimacy criteria EPA is imposing for nonhazardous secondary materials were developed to avoid sham recycling of hazardous materials that are waste in the first instance - i.e., they have been discarded. The proposal is especially unreasonable considering the legitimacy criteria EPA is proposing to require for nonhazardous secondary material under Subpart D are more stringent and less flexible than the legitimacy criteria adopted in 2008 for Subtitle C for *hazardous* secondary materials. See FR 31870 n. 48. Because of the rigidity in EPA's proposal that would require *all* legitimacy criteria to be met in order to maintain non-waste status and the complexity associated with obtaining and assessing data to determine that the criteria proposed in § 241.3(d)(1)(iii) is met.

V. EPA Should Remove the Presumption that Nonhazardous Secondary Materials Transferred for Use as Fuel are Solid Waste and Recognize Diverse Ownership Structures.

A. The Third Party Transfer Language Inappropriately Deems Secondary Materials as Waste and Violates the RCRA Discard Language.

As currently drafted, the proposed rule creates a situation where nonhazardous secondary materials transferred to a third party for use as fuel are automatically considered solid wastes. 75 FR 31856. Such a situation is unacceptable and contrary to law. Many facilities purchase secondary materials as "fuel products" from small entities, such as sawdust from furniture manufacturers. Even though this material is never discarded, has intrinsic fuel value, and has economic value to the seller and the buyer, the current treatment under the proposed regulation would require regulatory intervention to get the material into the fuel category. This will create a hardship and loss of revenue for many small businesses. Additionally, buyers may increasingly turn to fossil fuels to supplement the loss of these secondary materials as fuel. There are existing standards that establish whether a material is a waste or not that EPA is ignoring. EPA should consider those existing standards and avoid a "de facto" solid waste determination for nonhazardous secondary materials transferred for use as fuel.

B. EPA Should Expressly State that Nonhazardous Secondary Materials Transferred Between Co-located Entities are not Solid Waste.

CIBO urges EPA to also recognize the various ownership structures that are becoming more prevalent, not only in the newly developing biofuels and bio-based materials manufacturing industry, but also in other industrial sectors. Due to the diverse nature of processes involved, there are economic and overall business advantages to facility arrangements that contain some portions owned completely by one corporate entity, other portions owned by another entity, and other portions can be owned by joint venture entities.

EPA has interpreted *Safe Food and Fertilizer* v. *EPA*, 350 F.3d 1263 (DC Cir. 2003) to grant to EPA "the discretion to determine that a material is not a solid waste, even if it is transferred between industries." 75 FR 31851. CIBO agrees with this interpretation granting EPA that discretion. EPA also has placed an importance on a material staying "on-site," both in this and other rules. See, e.g., 75 FR 31875. While CIBO maintains that the nonhazardous secondary materials at its members sites are not waste, even if they were classified as such under the proposed rule, they would not be considered "discarded" if they were kept on-site. 75 FR 31858.

Co-located companies with differing ownership structures allow for process and byproduct integration that can optimize processes and economics. Regardless of the ownership structure, the facilities can appear as single entities or parts of facilities, on the same site, that existed prior to new product development. The critical issue is that there is no functional difference in how materials are handled regardless of the ownership of parts of the overall facility, which has been a major concern of the EPA when proposing rules regarding transfer of materials. EPA has taken the position that "when nonhazardous secondary material fuels are transferred to another party…the material is discarded since the generator has relinquished control of the secondary material and the entity receiving such materials may not have the same incentives to manage

them as a useful product…." 75 FR 31875. However, under the circumstances in this proposal, because the materials would remain on-site, and would only be transferred between companies with a existing arrangement, there would be equal incentive for the second company to manage the material as a useful product.

EPA should make clear that the rule does not impose artificial barriers or additional regulatory hurdles simply based on ownership structures. Rather, the rule should be flexible enough to allow for any functional arrangements that can result in achieving the CAA requirements for environmental protection.

VI. The Preamble and Regulatory Text Should be Clarified so that they are consistent and there is no ambiguity regarding whether a material is a waste or fuel.

As it is, EPA's approach creates uncertainty for facilities regarding whether a material is a waste or fuel when combusted. In some cases, the discussion in the Preamble implies that materials would be a fuel but then the regulatory text applied to the materials does not clearly result in the same categorization of the material. One example of this Preamble/regulatory text conflict relates to cellulosic biomass, including secondary materials such as secondary mill residues and pulp and paper residuals. According to the Preamble, EPA concludes that secondary mill residues and pulp and paper residuals are likely legitimate fuels and not waste. However, application of the criteria in the regulatory text can lead to a waste outcome or could be inconclusive on this critical point. While it may be relatively easy to determine that some of the legitimacy criteria are met (e.g., meaningful heating value) determining whether the material contains contaminants at levels comparable or lower than those in traditional fuels that the combustion unit is designed to burn could be a very complex task. Given EPA's stringent method of applying these applicability criteria (i.e., each criterion must be met for a nonhazardous secondary material to be a fuel rather than a waste), the rigid application of the regulatory text could lead to a different outcome.

Another area in question is the proper categorization of nonhazardous secondary materials, including resinated wood residuals and pulp and paper sludges used as fuel. If such a material is on-site and not discarded, the Preamble appears to indicate that this material would be a fuel and no further analysis is required. 75 FR 31862. EPA states that based on data available for resinated wood residuals and for pulp and paper sludges, "we have decided to classify resinated wood residuals as non-wastes for purposes of this proposed rule if they are used as fuels within the control of the generator." 75 FR 31862. Similarly EPA states "we also have decided to classify pulp and paper sludges that are used as fuels within the control of the generator to be non-waste." 75 FR 31862. This same logic used for resinated wood and pulp and paper sludges applies equally to other materials such as pulp and paper residuals also under the control of the generator and all such materials should not be subject to the self-determination process in order to be non-waste.

The proposed regulatory text leaves this issue ambiguous. 40 CFR § 241.3 (proposed). EPA should clarify that if a material does not leave the site, and has not been discarded, it can be used as a fuel and is not subject to analysis under the legitimacy criteria.

The flow chart EPA produced to accompany the rule, and the regulatory text appear to lead to conclusions inconsistent with the Preamble language cited above and do not account for a situation where a nonhazardous secondary material remains in the control of the generator and is not discarded. CIBO strongly supports the use of a flow chart, to ease facility implementation of these complex rules. However, CIBO urges EPA to critically review the flow chart for consistency with the Preamble and regulatory text and to ensure that use of the flow chart will result in applicability determinations consistent with EPA's overall conclusions that certain waste materials are generally non-wastes while others may not be. The flowchart and regulatory text should reflect that if the material is not discarded, the nonhazardous secondary material is not a waste and the legitimacy criteria need not be satisfied. If EPA fails to make this change, the current proposal appears to be inconsistent with case law and threatens to cast a vast number of materials previously generated and used on site as fuels into the waste category.

VII. Residual fuels in use today should be categorized as traditional fuels.

The Preamble to the proposed rule recognizes the existence of traditional fuels. 75 FR 31856. Other materials must undergo an analysis to determine whether they are considered waste or fuel. EPA seeks comment on "whether other fuels in use today also should be classified as traditional fuels," noting that "commenters will need to explain why such materials should be considered a traditional fuel—that is, an explanation of how the materials have historically been managed as a valuable fuel product and not a waste." 75 FR 31856.

Residuals of many production processes such as pulp and paper residuals, sawdust from sawmills and woodworking shops, agricultural processing residues, mining residuals and water and wastewater treatment residuals are routinely recovered and used as valuable and renewable, domestically sourced fuels. EPA should clarify that these fuels should be correctly classified as traditional fuels and continue to be used as such. In addition to their economic value, using these residual fuels provides environmental benefits such as reducing landfill space and related methane production related to their disposal. It is axiomatic that EPA's solid waste definition excludes residuals that have a long history of use as fuels.

As energy markets tighten and dependence on alternative fuels increase, regulators will need to increasingly account for the energy value of residual fuels in setting environmental standards. Environmental regulations that inhibit the continued use of residual fuels will likewise inhibit the development of technology and reduce the potential for economic growth that these technologies provide including the formation and retention of high value jobs. Therefore, CIBO concurs with Congress and supports the continued use and expansion of these renewable, residual fuels through classification as traditional fuels rather than as solid wastes.

EPA has defined certain *hazardous* secondary materials, when handled according to RCRA regulations, as fuels when combusted. 75 FR 31873. Among these materials are comparable fuel and commercial chemical products that are fuels. EPA's rationale for defining these as fuels is that they either "meet the chemical & physical specifications of a traditional benchmark fuel" or "are themselves fuels." 75 FR 31873, fn 51. Residual fuels in use today could be viewed in this same light.

Among the materials now considered fuel that should continue to be defined as traditional fuel are:

- Coal refuse;
- Tire-derived fuels (or in the alternative defined as not a solid waste under EPA's analysis);
- Landfill gas;
- Biomass in most of its forms. EPA already proposes in the Preamble to exclude some biomass from solid waste designation as traditional fuels, but limits the exclusion to what the Agency describes as "clean cellulosic biomass," including some secondary materials such as "unadulterated" sawdust and trim materials. We agree with those classifications, but do not believe the presence of chemicals not found in virgin materials or that do not levels of contaminants dissimilar to what is found in virgin materials, should affect a classification of biomass, or any material, as a traditional fuel. In particular, CIBO members using biomass secondary materials for fuel believe resinated wood product residuals, end-of-life creosote treated and certain other treated wood, pulp/paper mill wastewater treatment residuals, and paper/paper product recycling process residuals should be classified as traditional fuels. We refer EPA to the detailed descriptions of these materials and the rationales for their traditional fuel classifications in comments submitted by the American Forest & Paper Association or by the American Wood Council. In brief:

    - EPA's proposal regards resinated wood product residuals as fuel when under control of the generator. Resinated wood products residuals are trim, sawdust, shavings, sanderdust and other residues from producing resinated wood products; these materials have been used as fuels by wood products plants since the industry began in the 1950s and the materials are bought and sold for fuel use (or ingredient use) as well as used for fuel under control of the generator. Resinated wood products have high heating value, are handled as a valued product, and have HAP emissions comparable to those from burning virgin biomass.

    - Creosote, a derivative of coal, is a traditional fuel by itself. Creosote treated wood is simply a combination of two traditional fuels. End-of-life creosote treated wood cross-ties and poles have long and widely been used as a fuel, have high heating value, are processed for and handled as a fuel product, and have emissions comparable to those that would result from burning virgin biomass.

    - EPA's proposal regards wastewater treatment residuals from pulp and paper mills as fuel when under control of the generator. As the proposal explains, these materials have long been used as fuels and their use is increasing as technical advances make recovering their heating value more

economic. These residues consist exclusively of biomass and neutral filler materials, are handled as valuable materials, and do not emit any more than virgin biomass when burned. They are dewatered and otherwise treated to enhance their heating value before being burned, and this provides further proof of their legitimate fuel use. There are some sales of these residuals for fuel use.

- Recycling process residuals are residuals from recycling paper and paper products. The residuals that are not suitable for such reuse, but which have fuel value, have long been screened out and used as fuel. This long-established practice makes these residuals legitimate fuels as EPA has recognized. These residuals have meaningful heating value, are handled as a valuable commodity, and have emissions comparable to those from burning traditional biomass. They result from the extensive processing of materials being recycled into new paper products, and this reprocessing is intended specifically to fit them for fuel use.

To ensure consistency with existing regulatory treatment of these materials, the following amendment should be included in §241.3(b)(1), including these materials as traditional fuels:

§241.3(b)(1) Traditional fuels, including:

i. fossil fuels (including coal refuse);
ii. clean, cellulosic biomass;
iii. TDF (chipped with substantial metal removal);
iv. on-spec used oil; and

A. Secondary Materials from New Processes to Meet the Renewable Fuel Standard Should be Defined as Traditional Fuels.

EPA is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The Renewable Fuel Standard (RFS) program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act (EPAct) of 2005, and established the first renewable fuel volume mandate in the United States. As required under EPAct, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012.

Under the Energy Independence and Security Act (EISA) of 2007, the RFS program was expanded in several key ways:

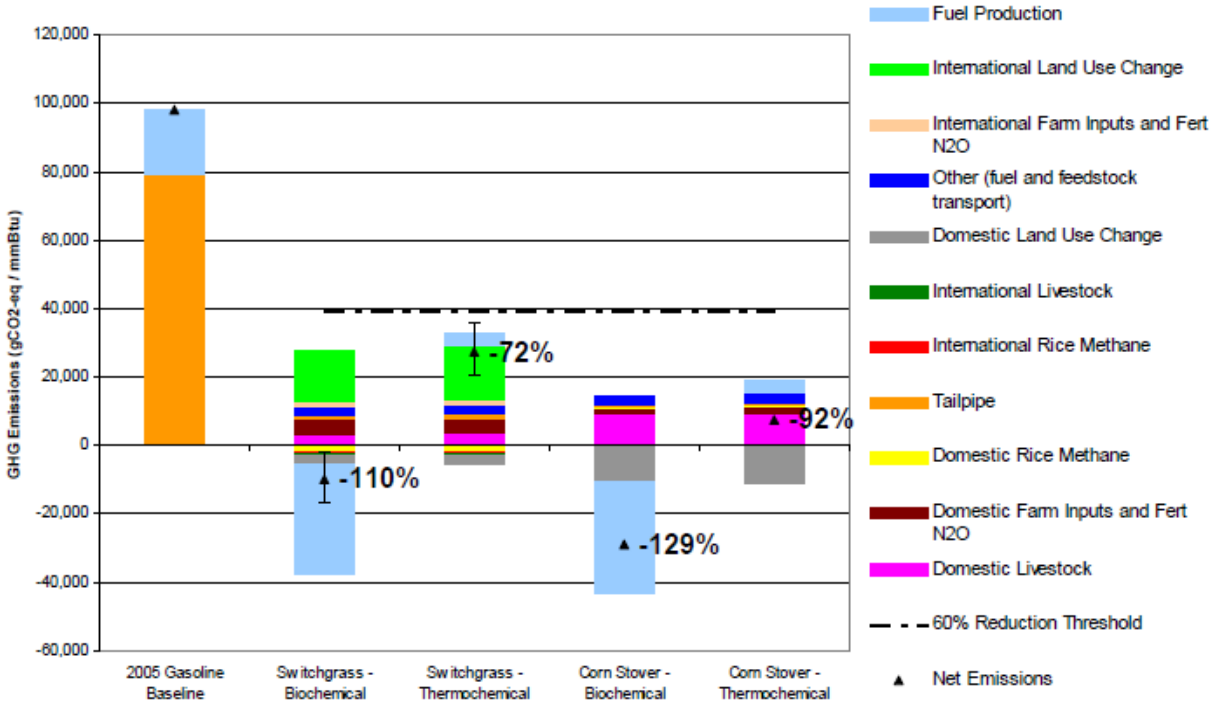
- EISA expanded the RFS program to include diesel, in addition to gasoline;
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022;

- EISA established new categories of renewable fuel, and set separate volume requirements for each one.
- EISA required EPA to apply lifecycle greenhouse gas performance threshold standards to ensure that each category of renewable fuel emits fewer greenhouse gases than the petroleum fuel it replaces.

RFS2 lays the foundation for achieving significant reductions of greenhouse gas emissions from the use of renewable fuels, for reducing imported petroleum, and encouraging the development and expansion of our nation's renewable fuels sector.[6]

EPA is now developing rules to implement the RFS. For example, EPA proposed amendments to 40 CFR Part 80 on July 20, 2010.[7] In the supporting documentation for that RFS proposal, EPA relies on the following Figure 2.6-12 from the RFS2 Regulatory Impact Analysis (RIA)[8]:

Figure 2.6-12. Results for Cellulosic Ethanol by Lifecycle Stage Biochemical and Thermochemical for Switchgrass and Corn Stover



As shown in the Figure, cellulosic fuels have the opportunity to significantly reduce greenhouse gas (GHG) emissions compared to the baseline. For the "Switchgrass – Biochemical" and "Corn Stover – Biochemical" cases, this is largely due to the beneficial reuse of the unfermentable

[6] http://www.epa.gov/otaq/fuels/renewablefuels/index.htm
[7] *See* Regulation of Fuels and Fuel Additives: 2011 Renewable Fuel Standards, Proposed Rule, 75 FR 42238 (Jul. 20, 2010).
[8] Renewable Fuel Standard Program (RFS2) Regulatory Impact Analysis, EPA-420-R-10-006, February 2010.

portion of the incoming biomass, which exists as a byproduct from this continuous, highly integrated production process. For these cases, it is assumed that this byproduct is used to provide the heat and power for the biorefinery process, and as stated in the Table 2.4-59 discussion, excess electricity is produced from the unfermentable portion of the incoming biomass generated from the biochemical process. This would mean that this material would need to be burned, either on-site by the generator or off-site, to produce heat and power. The biomass heat and power aspect of the biochemical process is critical to the significant GHG savings of this biofuel. The RIA also discusses in several places the potential for use of Combined Heat and Power (CHP) relative to biofuel production. Based on past practice, it is well known that CHP facilities can be installed by the process owner (secondary material generator) or a third party. Arbitrary regulatory approaches with an inherent bias toward use of secondary materials as fuel by the generator vs. a separate third party entity place arbitrary and capricious obstacles in the way of optimization of biofuel processes and will hinder development and production of biofuels.

According to the RFS2 docket information, several renewable fuel pathways presented for both ethanol and butanol are modeled assuming some type of biomass heat and/or power. It is clear from the GHG results for these pathways, that there are significant benefits for both ethanol and butanol from using biomass as fuel. As EPA notes in the RFS2 RIA "Since commercial production of cellulosic ethanol has not yet begun, it is unclear which process options will prove most viable or whether additional variations will emerge."[9] It is, therefore, critical that CAA regulatory approaches relative to secondary material combustion for energy recovery be flexible enough to allow for various processes to be developed and optimized without bias or presenting disincentives toward any particular process options or approaches.

Further, EPA notes in the Preamble: "The Court further held that the term "discarded materials" could not include materials "destined for beneficial reuse or recycling in a continuous process by the generating industry itself. (824 F.2d at 1190)." 75 FR 31850. Therefore, byproducts from biofuel processing cannot be considered discarded when utilized as fuel by the generator or, logically, by a directly associated third party entity.

Therefore, Congress has expressly stipulated, and EPA is implementing regulations requiring increased use of renewable fuels, and EPA is implementing methodologies which inherently incorporate use as fuels for energy recovery of secondary materials derived from biofuel production. Regulations under the proposed identification of nonhazardous secondary materials as solid waste and the associated Boiler MACT and CISWI rules need to reflect EPA and DOE established policies and regulatory approaches under another part of EPA (as well as DOE) that are advancing beneficial use of these secondary materials. The rule should not impose regulatory impediments via emissions regulations that effectively discourage or prevent use of those secondary materials as fuels. To do so would lead to reduced beneficial use of these materials, negatively impact the economics of these newly developing processes, increase use of conventional fossil fuels, and thereby significantly harm the prospects of reaching Congress's RFS goals.

[9] EPA-420-R-10-006, Renewable Fuel Standard Program (RFS2) Regulatory Impact Analysis, February 2010 at p. 103.

In response to EPA's request for comments on regarding whether other fuels should be classified as traditional fuels or other types of cellulosic biomass should be designated as clean biomass, and thus a traditional fuel: if the newly developing biofuels processes had actually been in existence already, secondary materials would already be used as fuels and, thereby, already be "traditional fuels" as EPA has called them in this proposal. 75 FR 31856 EPA should not establish rules that are biased against newly developing or future processes that would have been handled in a manner similar to past practice. If EPA proceeds with the proposed approach, provisions need to be incorporated to firmly establish that secondary materials from biofuels or other biomaterials production are "traditional fuels" and not solid waste. There should also not be any need to meet legitimacy criteria or any other artificial hurdles for these materials since they are derived from biomass sources that are similar to those EPA classifies as "clean biomass." Thus, secondary materials derived from cellulosic biofuel or biomaterial processes should also be included as clean biomass and thereby classified as traditional fuels.

B. Tire-Derived Fuels.

Tire-derived fuels (TDF) have high value to many industries, including CIBO member companies. According to EPA, more than 130 million scrap tires annually are combusted for energy recovery, including approximately 17 million tires per year in industrial boilers. Their high heating value makes scrap tires a good fuel for industries with energy-intensive processes, e.g., cement plants, industrial boilers, electricity-generating facilities, and pulp and paper mills. Tires, when burned, produce the same amount of energy as oil, 25-50% more energy than coal, and 100-200% more energy than wood, according to the EPA.

Over the years, more and more combustion facilities use scrap tires not only because of their high energy content but also because they are cheaper than coal, produce cleaner emissions, and have low moisture content. EPA testing has shown that (a) tire ash residues contain less heavy metals than some coals, and (b) tire combustion results in lower NOx emissions compared to burning high-sulfur coal.

Furthermore, scrap tires can be up to 30% biomass. According to a study by French company Aliapur, used passenger car tires have biomass fractions between 17% to 20% while used truck tires are between 28% to 30% biomass. The biomass components of tires include natural rubber, and stearic acid. Due to their significant biomass fractions, combusted scrap tires and tire-derived fuel produce less fossil carbon dioxide emissions compared to coal and petroleum coke but their heat output is similar to traditional fuels.

According to the EPA website,[10] the use of tires as fuel as the following other benefits:

- "Use of tire derived fuel (TDF) reduces the amount of fossil fuels that would otherwise be consumed."

[10] U.S. EPA website, Tire-Derived Fuels Frequent Questions
http://www.epa.gov/osw/conserve/materials/tires/faq-tdf.htm#q3

- TDF is less expensive than fossil fuels.
- Diversion of tires from landfills reserves landfill capacity for other municipal waste and helps prevent scrap tire piles. Scrap tire piles pose risks because they provide habitat for disease vectors (such as mosquitoes and rodents), and because they can catch fire, creating large amounts of toxic smoke and hazardous liquids that can contaminate air, water and soils.
- Some state agencies suggest that cement kilns add TDF to their coal fuel in order to decrease emissions of oxides of nitrogen (NOx).
- TDF offers the potential advantage of decreasing emissions of oxides of sulfur (SOx) when used to replace high sulfur coal.
- In cement kiln applications, the ash resulting from TDF and coal combustion becomes an integral component of the product, eliminating the landfilling of ash."

Our concern is that EPA's definition of solid waste could preclude many industries currently burning TDF for fuel from continuing to use TDF for fear of triggering additional requirements under § 129.

EPA's website,[11] under Frequent Questions, specifies:

- What are examples of nonhazardous secondary materials that EPA is proposing to be considered solid waste when burned in combustion units?: Under the proposal, examples of materials designated as solid wastes when burned include;
  - Whole tires or shredded tires where a significant portion of the metal has not been removed,
- What are examples of nonhazardous secondary materials that EPA is proposing to not be considered solid waste when burned in combustion units? Under the proposal, examples of materials designated not to be solid wastes when burned include:
  - Tire-derived fuel (where the steel belts and wire have been removed)"

Many facilities do not remove wire prior to burning TDF, though material is passed through a magnet to remove free wire at the TDF processor. According to the ASTM standard itself, the presence of metal or wire is a material handling issue and not an emissions issue. See "Standard Practice for Use of Tire-Derived Fuel." ASTM D6700-01, ASTM, 2006. The presence of metal does not affect emissions from the burning of TDF. In some cases, wire is removed intact from bottom ash, which can be recycled or landfilled. The Standard itself states that "all bead wire essentially becomes part of the grate ash."

The State of Michigan amended its scrap tire management statute in 2006 to define TDF as a commodity regardless of wire content. Specifically, "commodity" is defined as

> crumb rubber, tire chips, a ring or slab cut from a tire for use as a weight, or a product die-cut or punched from a tire, or any other product, that, as determined

[11] U.S. EPA website, Tire-Derived Fuels Frequent Questions
http://www.epa.gov/epawaste/nonhaz/define/faq.htm.

> by the department based on the product's production cost and value, is not likely to result in an accumulation, at the site of production or use, that poses a threat to public health or the environment. A product is not a commodity unless it meets published national standards or specifications that the department determines are relevant to accomplishing the purposes of this part.

MICH. COMP. LAWS § 169 (2006).

Michigan has determined that TDF meeting this basic processing standard is a clean 2-inch chip with wire and that this meets the definition of a commodity and is therefore not regulated as a solid waste.

By contrast, EPA's characterization provides little certainty about what actually is required as there is no guidance on what would be a "significant portion" of the wire. Also, does "where steel belts and wires have been removed," mean all the belts and wires? Would removal of a "significant portion of the wire" be sufficient? What constitutes a "significant portion" in each of these cases?

This is a critical concept. Most TDF is used in shredded form. The process of shredding tires removes much of the embedded metal wire and sizes the TDF appropriately for use in utility and industrial boilers or other applications. The percentage of wire removed and size of the resulting rubber material depends on the specific processing equipment and number of processing steps.

Generally, whole tires are first manually loaded on to a 'de-beading' machine that removes and discards the bead wire along the inner rim. End users and tire processers interviewed estimate that the bead wire contains at least 75% of all the metal in the tire. Exact quantities depend on the tire size, manufacturer and application.

Next, the tire passes through a series of knives that slice the tire, sizing it for use as TDF. Depending on the number of knives, post-screening and reprocessing cycles, product sizing varies from 1½ to 4" square. The size many utility and industrial boiler end users favor is usually in the 1½ to 2" range as it most closely matches the material size and handling characteristics of the coal being replaced.

Each processing cycle increases costs. The shredded and de-beaded TDF is generally the limit of TDF processing that is cost effective for industry and utilities to use. Further processing effectively prices TDF out of the market, as at that point, coal becomes less expensive to burn.

Other applications of shredded tires such as playgrounds and rubber flooring require further processing to remove *all* metal and reduce particle size. After the cutting process, some processors use rasping equipment to slowly rub the material, separating much of the remaining rubber, metal and cloth material, creating a product between ½ and ¾ inches square. If desired, a second rasping process creates 'crumb' rubber for flooring materials. Between each processing step, metal extracted is typically removed by magnets. Some processors use magnets between cutting stages to remove tire chips with exposed metal. However, material from rasping processes is typically too small to mix well with coal or wood materials, and so it is not feasible to use such rasped materials in most combustion processes.

It is clear that EPA regards TDF to be a valuable and environmentally beneficial fuel, and encourages its use. However, as currently presented, the proposed definition does not provide enough clarity to assure companies can continue to utilize this resource without inadvertently triggering needless additional regulation. De-beading and sizing removes a significant majority of the wire contained in tires and constitutes the maximum amount of processing economically feasible. EPA should assure its definition pertaining to TDF reflects this.

C. Coal refuse is a traditional fuel and should be defined as such.

Coal refuse is a fossil fuel and has been treated by EPA as such a fuel under its definitions of coal and fossil fuel and facilities using it as a fuel have been regulated as fossil fuel fired under Title IV of the Clean Air Act, as well as under CAIR Rule and now the proposed Air Transport Rule.

Coal refuse is highly valued as a fuel source for some CIBO members' operating facilities. Anthracite and bituminous coal refuse are reclaimed and used for energy, offering tremendous environmental benefits along with the production of useful energy. Projections indicate an excess of 1.1 billion tons of coal refuse located throughout the coal mining states (including Alaska). This has an energy equivalency of over 2 billion barrels of oil or over 11.7 billion Mcf of natural gas (assumes an average Btu value of 5,500 Btu/lb for the coal refuse). Such fuels are available and viable and are expected to account for an increasing share of U.S. energy consumption.

EPA draws and irrational line between coal refuse

> between coal refuse that was generated in the past and placed into 'legacy' piles, and the current generation of coal refuse. Legacy piles of coal refuse would clearly be considered to be disposed of and abandoned, thus meeting the definition of a solid waste material. We would not consider currently generated coal refuse to be abandoned or disposed of and, therefore, would not be considered a solid waste.

75 FR 31865. Coal refuse past and coal refuse present cannot be differentiated on any rational basis. If presently mined coal is a fuel, so is past mined coal. Further, in order to mine what EPA describes as a 'legacy' pile, a surface coal mining permit (as well as other related environmental permits) must be obtained to conduct a "new mining operation." There is nothing separating how a coal refuse site would be mined and the need to process using the same processing techniques no matter when the coal refuse was generated.

1. Coal refuse is a type of coal, which is a traditional fossil fuel.

Any mining or processing of eligible sites, whether it is from active mining operations or from Abandoned Mine Land (AML), requires the person doing the mining and processing to obtain a permit from the federal Office of Surface Mining Reclamation and Enforcement (OSMRE) or State regulatory authority. Whether the coal refuse is from abandoned mine sites or from active production, the material is processed prior to its placement in the boiler. Processing, at a minimum, involves mining, separation through the use of screens or grizzlies, blending, crushing and some drying. With existing and advanced combustion technologies, these materials are

being used as a fuel to generate electricity or additionally to cogenerate steam and in the future will become feedstock for coal to liquid plants as well as for coal gasification projects.

Under 40 CFR § 60.41, "fossil fuel" is defined as "natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such materials for the purpose of creating useful heat." "Coal refuse" is defined in 40 CFR § 60.41 as "waste-products of coal mining, cleaning, and coal preparation operations (e.g., culm, gob, etc.) containing coal, matrix material, clay, and other organic and inorganic material." 40 CFR § 60.41b is consistent: "Coal means…coal refuse…." EPA regulations further define "coal refuse" as "any byproduct of coal mining or coal cleaning operations with an ash content greater than 50 percent, by weight, and a heating value less than 13,900 kJ/kg (6,000 Btu/lb) on a dry basis."[12]

Facilities burning coal refuse and/or coal slurry have been permitted by the States and EPA as coal fired or fossil fuel fired units, not incinerators. The definition in the regulation has nothing to do with when the coal refuse was generated. The States (with oversight from EPA) have recently permitted facilities burning coal refuse as fossil fuel units. There was no discussion as to when the coal refuse was generated. The coal refuse that provides fuel to these facilities would have come from abandoned coal refuse sites (eligible for AML) as well as other sources (new and past production).

The facilities burning coal refuse were designed specifically to burn coal refuse. They have been permitted and operating since the 1980s. The coal refuse concept created by the Federal Energy Regulatory Commission (FERC) (identified by FERC as waste coal) focused not on whether the waste coal was a fossil fuel but on whether it was treated as a fossil fuel having no value. Fossil fuel plants are designed to burn high Btu and low ash material; waste coal plants are designed to burn low Btu high ash fuel. Further, FERC, States and EPA were aware that sites where waste coal (coal refuse) was being secured, mined, and processed would be either coal refuse sites eligible for reclamation under the federal AML program, and from active mining operations, from sites and coal preparation facilities. In addition, FERC envisioned active waste coal markets evolving in the long run that would result in the processing of coal waste ensuring the long-term provision of fuel for the plants.

All of these operations were permitted under State coal mining regulatory programs. States were delegated primary jurisdiction for coal mining operations from OSMRE. These same operations are required to obtain NPDES permits for their discharges under 30 CFR 434 related to Effluent Guidelines for Coal Mining. In addition, they are required to meet State and Federal Clean Air

[12] Per 40 CFR 60.41, there are three definitions that are applicable defining coal refuse as a fuel. These are:

(b) Fossil fuel means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such materials for the purpose of creating useful heat.

(c) Coal refuse means waste-products of coal mining, cleaning, and coal preparation operations (e.g. culm, gob, etc.) containing coal, matrix material, clay, and other organic and inorganic material.

(f) Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by ASTM D388 (incorporated by reference, (see § 60.17).

Act regulations for coal processing. Stated simply, EPA regulates aspects of the mining and remining of coal refuse under its statutes that govern coal mining, not waste management.

Coal refuse is not regulated under the Solid Waste Disposal Act. See SWDA 42 U.S.C. § 1006(c). In addition to its regulatory treatment as a fuel, coal refuse has traditionally been burned as a fuel 75 FR 31852. Coal refuse has also been managed as a legitimate fuel. 75 FR 31865. In Pennsylvania, the definition of solid waste (specifically the residual and hazardous waste categories) expressly states that coal refuse is neither a residual waste nor a hazardous waste. This is based on RCRA and prior EPA decisions related to coal mining waste and the fact that coal refuse and remining of coal refuse is under the jurisdiction of Pennsylvania's coal mine regulatory program.

2. All coal refuse, regardless of when it was generated, is by definition "fuel" and EPA should eliminate the false distinction based on when coal was mined.

As EPA recognized in the ANPR, coal refuse is "indistinguishable in all relevant aspects from a fuel or ingredient product." 74 FR 59. On that basis, EPA rationally defines presently generated coal refuse as a fuel. However, EPA then irrationally concludes that based on when the coal was mined it will be a fuel or waste. Coal refuses differ just as coals differ. The coal refuse will share the same characteristics as the coal seam from which it was mined, regardless of when it was mined.

Creating this false distinction serves no environmental purpose. The coal refuse is processed at the mine site and at the plant site to improve its quality, reduce the ash content, reduce the sulfur content (lbs/MMBtu basis) and in the process reduce concentrations of various constituents delivered to the boiler. This is accomplished through the use of grizzlies, screens, other separation technologies and blending. From an environmental perspective, coal refuse (regardless when mined) has advantages over coal, because technology has been developed to use its energy value beneficially while providing additional control measures. As EPA points out, although coal refuse tends to have higher content of some metals, it is typically used as fuel in newer boilers equipped with circulating fluidized beds (CFBs), which have emissions levels "lower than most existing pulverized coal utility boilers." 75 FR 31865-66. This is due to several factors: (1) CFB boilers are often newer than many existing pulverized coal utility boilers and may be equipped with better particulate matter (PM) controls; (2) CFBs utilize lower operating temperatures, which result in lower metal and NOX emissions; and (3) CFB boilers often add limestone to their feed to control SO2 emissions, which results in greater metal fixation to the ash. 75 FR 31865 n. 38. Notwithstanding the higher metals content of coal refuse, CFBs typically capture 90 – 99% of mercury and other metals.

3. EPA's definition of coal refuse as waste is inconsistent with other governing federal law.

By classifying some coal refuse as "waste," EPA's proposed rule interferes with goals clearly established in RCRA and is in direct conflict with the Federal Surface Mining Control and Reclamation Act.[13]

Under RCRA, although the term "solid waste" includes mining waste in the definition, EPA conducted a study under Section 1006(c) regarding mining wastes including waste associated with coal mining and made a determination not to regulate these materials as a solid waste.

The language in Section 1006(c) reads as follows:

> "(c) INTEGRATION WITH THE SURFACE MINING CONTROL AND RECLAMATION ACT OF 1977.—(1) No later than 90 days after the date of enactment of the Solid Waste Disposal Act Amendments of 1980, the Administrator shall review any regulations applicable to the treatment, storage, or disposal of any coal mining wastes or overburden promulgated by the Secretary of the Interior under the Surface Mining and Reclamation Act of 1977. If the Administrator determines that any requirement of final regulations promulgated under any section of subtitle C relating to mining wastes or overburden is not adequately addressed in such regulations promulgated by the Secretary, the Administrator shall promptly transmit such determination, together with suggested revisions and supporting documentation, to the Secretary.
>
> (2) The Secretary of the Interior shall have exclusive responsibility for carrying out any requirement of subtitle C of this Act with respect to coal mining wastes or overburden for which a surface coal mining and reclamation permit is issued or approved under the Surface Mining Control and Reclamation Act [SMCRA] of 1977. The Secretary shall, with the concurrence of the Administrator, promulgate such regulations as may be necessary to carry out the purposes of this subsection and shall integrate such regulations with regulations promulgated under the Surface Mining Control and Reclamation Act of 1977. [42 U.S.C. 6905]"

As such, SMCRA controls the remining and processing of all coal refuse sites whether or not eligible for AML reclamation. EPA's proposed classification of coal refuse from legacy sites as a solid waste flies in the face of how Congress intended to handle coal refuse through RCRA and SMCRA.

4. Coal refuse that is contracted for delivery as fuel should not be considered "discarded."

EPA describes the many layers of legal analysis related to materials and whether they have been "discarded" and are therefore solid wastes for purposes of RCRA. As EPA described, recent relevant caselaw reflects the courts' insistence on reasonableness and careful examination of the

[13] 30 U.S.C. § 1251a (1992)

purpose of RCRA, when making a determination of whether a material is discarded. *See Safe Food and Fertilizer v. EPA*, 350 F.3d 1263, 1268 (DC Cir. 2003) (Court evaluates whether the agency's interpretation of …'discarded'…is reasonable and consistent with the statutory purpose). EPA reads these cases to mean that EPA retains the discretion to define terms under RCRA. 75 FR 31851. CIBO agrees.

The piles of coal refuse that are being used as fuel are owned and/or controlled by entities that intend to and are using the coal as fuel, to run plants and produce power. Even if such coal refuse may have been abandoned in the past, it has been under the ownership or control of a plant designed and under contract to utilize it as an energy source. Such materials are certainly not "abandoned" any more than present coal refuse is abandoned. The owners of legacy piles have asserted control over the fuel in order to finance and design and build a power plant, and contract to provide power to the grid. From that perspective, the energy extraction from the past coal refuse is the reason for constructing the plant, making the coal refuse central to the project, and certainly not discarded. In *American Mining Congress v. EPA*, 824 F.2d 1177 (D.C. Cir. 1987), the Court held that the term "discarded materials" could not include materials "destined for beneficial reuse or recycling in a continuous process by the generating industry itself. 824 F.2d at 1190. From the time a site with coal refuse is identified to the time it is burned for energy, it is the central focus of the plant operators and is involved in a continuous process with the goal of reusing it.

Under 40 C.F.R. § 261.2(c)(2)(ii), EPA has determined that commercial chemical products, even if hazardous, that are themselves fuels, are not waste when they are burned for energy recovery; the same should hold true for natural, non hazardous materials such as coal refuse. This should apply to raw materials as well.

EPA itself has not wanted to interfere with legitimate use of secondary materials, when the use of those materials would offer environmental and economic benefits. "[I]t is critical to interpret which secondary materials are not 'solid wastes' pursuant to RCRA to ensure the continued legitimate use of secondary materials in combustion processes. This, in turn, will maintain the continued environmental and economic benefits from these programs." 74 FR at 46. Given this demonstrated desire to promote these uses, it would be illogical for EPA to classify coal refuse, a very useful and sought after nonhazardous material, as discarded.

What EPA considers "traditional" treatment, for purposes of determining treatment as a fuel, must be viewed in the historical context of coal refuse and its regulation under mining laws. EPA could adopt a rule that defines coal refuse as discarded only if it remains discarded after a certain date or period of time. EPA should seek additional comment on the nature of the existing coal refuse sites, and develop a workable definition that will not distinguish between coals on the arbitrary basis of mining or remining.

5. Even if EPA considers past coal refuse discarded, it is sufficiently processed to meet EPA's processing criterion.

EPA reviewed the processing of coal refuse, and concluded that it "involves separation through the use of screens or grizzlies, blending, crushing, and some drying" but that "such operations

would constitute 'minimal processing' and would not meet the processing definition as proposed." 75 FR 31865.

This is incorrect. The processing of coal refuse clearly meets the proposed definition of "processing," which is expressly defined to include, "but is not limited to operations that: remove or destroy contaminants; significantly improve the fuel characteristics of the material, e.g., sizing or drying the material in combination with other operations; chemically improve the as fired energy content; and improve the ingredient characteristics." § 241.2, 75 FR 31892.

The coal refuse, current or legacy, is analyzed and evaluated to determine how to mine and process the coal to recover the energy in the coal refuse while excluding material that has minimal Btu value, higher ash content and to reduce pyritic sulfur. The screening process produces different size material. Certain sizes are excluded and other sizes are blended on site and with other processed coal refuse to produce a fuel that is delivered to the plant. At the plant, the fuel may pass through a crusher-dryer station, if additional crushing and drying is required, or may go directly to the fuel silo and from there to the boiler.

The processing that occurs is to eliminate detrimental metal objects, reduce ash, reduce sulfur, and increase Btus. The processing is designed to improve the fuel quality.

The preparation of coal refuse into a combustible fuel clearly constitutes "processing" as defined in the proposal. Consistent with this point, EPA has regarded the processing of used tires into a combustible fuel (as well as other products) as meeting the relevant standard. Processing coal refuse into a combustible fuel involves an equally if not more complicated processing than does chipping and removing metal from what is a consistent material in terms of component content, heat content, moisture, and ash.

In the case of facilities burning coal refuse (regardless of its age), the engineering design of a Circulating Fluidized Bed (CFB) is based on the quality of the coal refuse available to be burned in the boiler. Considerations for the fuel precede actual facility construction and financing, and directly impact boiler design and application.

In developing the specifications for the fuel, not only does the engineered design of the boiler closely examine the fuels available, it also examines the emissions that it must meet. For example, in a CFB, the primary controls related to SO2 emissions was to insure that there would be an adequate amount of limestone, within a defined range with and upper and lower limit (based on the quality of the limestone), injected into the boiler to capture the SO2 produced from the combustion of the fuel in the boiler

In developing the engineered design specifications of the fuel, the boiler designed accounted for but was not limited to: the heating value of the fuel, the size distribution of the fuel going to the boiler, the ash content of the fuel, the sulfur content and the moisture. The boiler design flexibility had to account for variations in heating value and sulfur content in addition to insuring that an adequate limestone source within the specified range was available to control the SO2 emissions.

The entire design is tied back to the coal refuse sites that were under the control of the project (owned, leased, or otherwise controlled), and a direct result of the exploration and analysis of the

coal refuse intended to be combusted. (This did not mean that the facility burning the coal refuse was also operating the coal refuse mining and processing sites.)

The coal refuse site is explored under a coal exploration permit issued/approval issued pursuant to the SMCRA Regulatory Program. As part of the exploration, the coal refuse is characterized to determine a variety of parameters in order to characterize the fuel. The parameters generally examined are the size fraction distribution in the coal refuse, the BTUs/lb, % Ash, % Sulfur, and % Moisture for each critical size. The sampling is spread throughout the site and at different elevations from the surface down.

The actual mining, processing, and reclamation activities at the site are permitted by a variety of state and federal regulatory programs having jurisdiction. The basic environmental permitting for the coal mining activity is obtained from the regulatory agency that has been delegated primacy under the SMCRA. In addition, there are additional permitting and or approvals obtained for water discharges from the coal mining operations and permits under the Clean Air Act for processing. 40 CFR § 434. Also, the Mine Safety and Health Administration has jurisdiction relative to coal mine safety. One needs to recognize that besides the permits and approvals need to mine the coal refuse, there is a significant amount of equipment associated with the mining and processing of the refuse. Further, these sites are bonded under SMCRA to insure that the approved reclamation plan can be achieved.

As part of the ongoing mining operation, the various faces where the coal refuse is being mined are sampled and analyzed in order for the proper blending of the fuel to continue. The sampling frequency is modified based on each site and site conditions.

So the concept that a facility just goes to a refuse pile, screens, blends, crushers, and perhaps dries the coal and then feeds it to a boiler is a gross oversimplification of the actual processes being utilized.

The following is a more detailed description of the processing:

- As described above, the grizzlies generally removed the rock and other material such as large sized metal, bricks, etc. that is nominally of 3" or larger pending which is predicated on the pile.

- From there, the processed material is transferred to either a breaker to further reduce the size fraction and rejecting material greater than that size fraction and/or screens for further separation and processing.

- The screen is designed to separate out the low BTU material and/or high sulfur material based on size. The net result is a product with higher BTUs and lower ash content and a lower sulfur content.

- During the course of the mining operations, there may be different material from different portions of the pile (highwalls) mixed and run through the process. Or, if multiple screens are used, the different size fractions are blended at

predetermined ratios based on the analysis of BTU, ash and sulfur content of the material.

- Magnets are used to remove any "fine" metal that maybe encountered in the mining process or metal that may have broken off from the machinery being used in the mining and processing operations.

The products from the processed materials (generally size separation) are analyzed for Btu content, moisture, ash, and sulfur. Based on the results of these analyses, the components are screened, crushed and/or dried (if needed), and blended to produce a fuel that meets the specifications of the crusher/dryer station and/or the boiler pending the design of the individual plant.

The processing results in the removal of material that has no intrinsic Btu value representing the non-combustible rock and inerts (measures as ash in the fuel). The ash that has been screened from the fuel contains concentrations of metals and other natural compounds thus reducing their concentrations in the fuel. In addition, by eliminating these materials there are reductions in the sulfur content related to the pyritic sulfur which is contained in the ash/rock rejects. As a result, the separation increases the Btu value of the fuel, reduces the sulfur content on a lbs/MMBtu basis in the fuel, and reduces the amount of ash being sent to the boiler. The result is a fuel product obtained from the lower Btu coal refuse that is higher in BTUs, lower in terms of lbs of sulfur per million Btus, and lower in ash. This improves the overall quality of the fuel going to the boiler. The processing and blending further ensures the fuel specifications for the boiler are met and that the permitted emissions are achieved.

This complex processing certainly constitutes "sufficient" processing under the proposal, particularly in light of other materials processing that EPA has said is sufficient.

6. Coal refuse meets each of the criteria for defining "legitimate fuel."

Coal refuse is (1) handled as a valuable commodity; (2) has meaningful heating value; and (3) contains contaminants that are comparable to or not significantly higher in concentration than traditional fuel products.

Coal refuse must be mined, processed, and transported to a power plant are fee-based services that have spawned business opportunities and service providers. In addition, as discussed above, a coal refuse site establishes the basis for construction and financing of a power plant - other strong evidence meeting EPA's criterion of handled as a valuable commodity. The heating value and comparable contaminant criteria are also clearly met.

7. If EPA insists on defining coal refuse as a waste, then in the CISWI rule, EPA should create a subcategory for coal refuse-fired boilers.

If coal refuse-fired boilers are categorized as incinerators, then they should be subcategorized as such. The fuel they burn, as EPA makes clear, is the same as other solid fuel boilers subject to § 112 standards. No additional regulatory measures can be justified for waste-coal boilers that are indistinguishable from other solid-fuel boilers. Such a CISWI subcategory should not impose duplicative and inappropriate requirements, including, for example:

- Incinerator operator certification;
- Continuous presence on-site by certified operators;
- Alternative siting analyses for new units;
- Certain (costly) source testing and establishment of operating parameters.

VIII. EPA Proposed Approach to defining solid waste for CAA § 112/§ 129 purposes.

RCRA generally governs the disposal of solid wastes, including solid wastes that are hazardous. 42 U.S.C. §§ 6901 *et seq.* RCRA Subtitle D applies to discarded nonhazardous solid waste. 42 U.S.C. § 6941. States generally have the primary role in regulating solid wastes in accordance with the minimum standards set by EPA for the best possible controls and monitoring requirements for solid waste disposal facilities. Only materials that are discarded in the ordinary sense are considered solid wastes under RCRA. *Am. Mining Congress v. EPA*, 824 F.2d 1177 (D.C. Cir. 1987). Numerous solid wastes have been exempted from the definition of hazardous waste. 40 CFR § 261.4.

Under the proposal, nonhazardous secondary materials that are used as fuels in boilers are defined as wastes unless they are a) under the control of the generator and meet "legitimacy criteria," b) are not under the control of the generator but have received a fuel (non-waste) determination through a petition process demonstrating legitimacy, or c) are processed sufficiently if once discarded; otherwise, secondary materials are considered discarded and defined as solid wastes. 75 FR 31855. In defining nonhazardous secondary materials as fuel or solid waste, EPA replicates elements of the *hazardous* waste program under RCRA Subtitle C. However, all of the materials subject to these proposed definitions are *nonhazardous*. See 75 FR 31855-56. In order to effectuate its stated goal of making the rule "flexible to account for increasing use and changes in commodities, technologies, markets, and fuel prices" (75 FR 31856), EPA should not restrain the nonhazardous secondary materials approach by utilizing ill-fitting concepts.

A. EPA's proposal incorrectly presumes materials are wastes.

As discussed above, under RCRA, a material is not a waste until discarded. EPA's construct begins with the opposite presumption: materials are wastes unless they meet certain criteria. The result is that nonhazardous materials that are not solid wastes under RCRA, may now become solid wastes.

B. If secondary materials are considered discarded, what is sufficient processing?

A confusing provision in this proposal requires secondary materials that have once been abandoned or discarded to be "sufficiently processed" before use as fuel even when the material would meet all legitimacy criteria without additional processing. This provision does not seem to meet the intent of the RCRA recycling provisions or be in line with the generally accepted waste hierarchy which prioritizes beneficial reuse of a material (with little to no processing) over recycling (which requires processing). The term "sufficient" processing is vague, it is unclear what environmental value this processing adds, and seems contrary to the intent of RCRA. Again, these are not hazardous materials and should not be treated in such a stringent manner

without benefit or justification. Because of these inherent problems, CIBO recommends that rather than continued uncertainty over sufficient processing, this provision should be dropped if materials demonstrate they can legitimately be used as fuels.

C. Legitimacy criteria are inappropriately applied to nonhazardous materials and result in nonhazardous materials being subject to stricter classification criteria than hazardous materials.

In October 2008, EPA revised the definition of solid waste. 73 FR 64668. Under this revision, hazardous secondary materials were excluded from the definition of solid waste if they were legitimately recycled. 40 CFR § 260.43. Now under subtitle C to determine when a material has been discarded, EPA turns to this key principle of "legitimacy." In the ANPR, EPA explained that

> [u]nder RCRA Subtitle C, some hazardous secondary materials that would otherwise be subject to regulation . . . are not considered solid wastes if they are "legitimately recycled" or legitimately used as an ingredient or substitute for a commercial product. The principal reasoning behind this construct is that use or recycling of such materials often closely resembles normal industrial production, rather than waste management. However, because there can be considerable economic incentive to manage recyclable materials outside of the RCRA hazardous waste regulatory system, there is a clear potential for and historical evidence of some handlers claiming they are recycling, when in fact they are conducting waste treatment and/or disposal in the guise of recycling. EPA considers such "sham" recycling to be, in fact, discard and materials being sham recycled to be solid wastes.

74 FR 52. Over time, a large body of administrative materials (regulations, interpretive documents, applicability determinations, agency memos, etc.) and court decisions have evolved that guide determination of whether a material has been legitimately recycled and therefore is not covered by RCRA Subtitle C, hazardous waste regulations.

In the Proposed Rule, EPA concludes that the concept of legitimacy is equally important to Subtitle D, nonhazardous waste determinations: a material is not a waste if it is legitimately burned as fuel in a unit designed with heat recovery or used as a legitimate ingredient in an industrial process. 75 FR 31882. EPA proposes three factors that show a material is a "legitimate alternative fuel": if it is handled like a valuable commodity; has "meaningful heating value"; and the concentrations of any contaminants are comparable to traditional fuel. 40 CFR § 241.3(d)(1) (proposed), 75 FR 31893.

CIBO recognizes that EPA's proposed legitimacy approach parallels its approach to defining hazardous wastes under RCRA. However, parallelism is not appropriate or helpful in legally defending the approach. The RCRA context is very different from the Clean Air Act context. Under RCRA, EPA defines materials as hazardous waste materials that may be mishandled or improperly land disposed. The current definition of hazardous waste requires any material that is

listed as a hazardous waste or meets the characteristic of a hazardous waste to remain a solid waste (and thus, a hazardous waste) even if it is burned for energy recovery.[14] 40 CFR §§ 261.3, 261.2. When these definitions were promulgated, there were no other applicable federal emission standards to regulate the emission of hazardous constituents from the units burning these materials for energy recovery. However, air emissions from combustion devices are no longer regulated under RCRA now that the MACT program has been implemented. Under the Clean Air Act, the burning of these secondary materials will be regulated under one of four categorical standards: (1) the Hazardous Waste Combustor MACT, (2) the Boiler and Process Heater MACT, (3) the Area Source Boiler and Process Heater rule, or (3) the CAA § 129 CISWI rule. Therefore, the concern over categorization as a fuel or as solid waste under these circumstances is not comparable to a RCRA disposal situation because air emissions from recycling will be regulated, and EPA is not compelled to follow the RCRA model.

The legitimacy criteria were crafted from an enforcement perspective to prevent sham recycling of Subtitle C hazardous waste. That approach was based on the potential environmental threat when such materials were disposed of or otherwise used. Nonhazardous materials do not pose a similar potential environmental threat. Unlike hazardous materials, the burdens of nonhazardous waste regulation do not create the incentives for sham recycling that exist with hazardous materials. Further, no matter how they are disposed of, they present no harm environmentally because facilities handling such materials operate under permit limits that reflect the allowable handling and methods of disposal, whether it be landfill or incineration. Another key distinction between Subtitle C and D is that nonhazardous waste does not present the same economic incentive to generators to avoid costly hazardous waste disposal. Thus, absent the Subtitle C concerns -- these materials pose no added environmental threat and their handling does not create an incentive to "game" the system -- there is no rational reason to adopt under Subtitle D the legitimacy construct tied to sham recycling.

CIBO strongly agrees with EPA's conclusion "that the law clearly grants EPA the discretion to define when materials are not solid waste under RCRA." 74 FR 51. An important corollary is also true: RCRA Subtitle C solid waste law does not bind EPA to adopt the same approach for Subtitle D solid waste analysis. While there may be valuable concepts to be considered from Subtitle C RCRA law, CIBO urges that reliance on those concepts is not required legally, is not appropriate for nonhazardous materials, and if pursued in any portion, must be done with great caution.

EPA's legitimacy criteria for hazardous wastes are much less demanding than those proposed for nonhazardous wastes. EPA requires fulfilling only two legitimacy criteria (providing a useful contribution to the recycling process or to a product or intermediate process and producing a valuable product or intermediate) in order to establish that legitimate recycling of hazardous

[14] While EPA states it is not considering any changes to its hazardous waste regulations and has no plans to respond to any such comments, CIBO states on the record that it believes EPA should, for the same reasons it articulates in the ANPRM for classifying nonhazardous materials as legitimate fuels, revise this restriction on materials burned for energy recovery. To regulate one material, just because its flash point is lower than the RCRA characteristic of ignitability (for example), as RCRA hazardous waste, when it is otherwise managed as a commodity and has meaningful heating value, is illogical.

secondary materials has occurred. 40 CFR § 260.43. However, EPA even acknowledges that both of these factors do not need to be met for the recycling to be considered legitimate. 40 CFR § 260.43(c)(3). Instead, other relevant considerations can be taken into account, such as the protectiveness of the storage methods, exposure from toxics in the product, [and] the bioavailability of the toxics in the product, even if neither criteria are met. In contrast, EPA now proposes that nonhazardous secondary materials must fulfill four criteria to establish that legitimate recycling has occurred (being handled as a valuable commodity, having a meaningful heating value, being used as a fuel in a combustion unit that recovers energy, and containing contaminants at levels comparable to those in traditional fuels). 75 FR 31856. EPA has failed to assess the potential impact of regulating nonhazardous secondary materials more stringently than hazardous ones and has offered no analysis or factual justification for this approach. EPA's proposed approach is not only illogical, but it is also contrary to law.

In addition, the construct EPA proposes lacks bright lines needed by sources for certainty as to whether they may or may not use a material for energy recovery and remain a § 112 source. The web of regulations and case law defining "legitimate recycling" are difficult to administer and create uncertainty for industry before federal and state regulators, as well as at their intersection. Withstanding a labyrinthine program to obtain a non-waste determination will require a large investment of time and resources. For generators or handlers of potentially hazardous waste pursuing a Subtitle C determination, investing such time may be worth the avoided cost of disposal. However, industrial boilers that conduct energy recovery using relatively small volumes of nonhazardous materials are not likely to have the same motivation or staying power.

1. Handled as a valuable commodity.

Regarding clean biomass: simple management techniques are in place for this. Typically the material is stored in uncovered piles, (similar to coal piles) due to the logistics of the large volumes of fuel material. An exception is highly dried wood fines (sawdust, sander dust) that are often stored under cover to retain their previously acquired low moisture characteristic. For other alternative fuels that are valuable commodities, there should not be any higher measure of containment or management.

2. Meaningful heating value.

a. *EPA should not set a Btu/lb heat value minimum*

EPA correctly points out that advanced boiler technology permits the beneficial use as fuel of an increasingly wider range of materials and heat values. 74 FR 54. It is a testament to boiler designers and operations engineers that facilities have the capability to replace traditional fuels with alternative fuels.

EPA does not propose in the regulatory text a minimum heating value, but does discuss the use of 5,000 Btu/lb in another unrelated regulatory context. 75 FR 31871. Use of a 5,000 Btu/lb limit would undercut the value of technology and alternate fuels by its approach. CIBO supports the proposal and opposes a Btu/lb minimum for a material to meet this criterion absent a showing of cost effectiveness. The specific value of a material is unique to the material, unit design, application, and other parameters. Use of a generic single minimum heating value could

foreclose use of materials that legitimately provide a measureable energy benefit. Any heating value is meaningful if it reduces fossil fuel dependency and yields environmental benefit and its emissions can be controlled through CAA standards.

In addition, regardless of the Btu value EPA would select, with respect to some future potential fuel, the number would be arbitrary. This would stifle continuing advancements in boiler design and operations that presently fulfill the RCRA goals of pollution source reduction, energy recovery and the most environmentally beneficial disposal methods possible for any byproduct material that is still generated. Even lower heating value fuels that provide useful heat energy to the boiler/process displace fossil fuels. The ability to capture heat value is improving and materials are improving, and EPA's regulations should reflect that.

b. *If EPA sets a minimum heating value, it should include the cost effectiveness provision, but should amend it to make it more useful to sources.*

Sources could use the flexibility of meeting some standard to demonstrate the value of materials that fall below any particular threshold, such as 2,500 Btu/lb. However, the factors EPA requires in its showing will require submission of mostly confidential business information, which sources will be very unlikely to decide to submit. The criteria for the showing make it very unlikely that a source will use the cost effectiveness showing and will instead stop using the materials for fuel.

c. *EPA should not presume that the use as fuel of materials with heating values below any bright line EPA may adopt are being burned for destruction.*

As discussed above, the threat of sham recycling is not a concern in the context of the use of nonhazardous materials as fuels. EPA adopts the meaningful heating value requirement as part of its legitimacy construct to provide a defensible legal rationale for determining whether a material is a fuel or waste. Sources may be forced to live with this construct, but in reality, the underlying legitimacy rationale is inappropriately applied to these circumstances, which are incongruous to the hazardous material disposal context. EPA should make no legal assumption that imputes motivations to a source's decision about what fuels to use, particularly where the imputed motivations are wrong, contextually incorrect and could have serious legal implications beyond these particular circumstances.

3. Comparable Contaminant Concentration.

a. *The "comparable contaminant levels" component of the proposed legitimacy criteria for nonhazardous secondary materials used as fuels will unnecessarily lead to increased use of fossil fuels and should not be required.*

The third criterion requiring "comparable or lower" pollutant levels is vague, overly stringent, and could lead to many materials being unnecessarily and regrettably removed from the nation's energy portfolio.

EPA's proposed third criterion provides that nonhazardous secondary materials burned as fuel must have "comparable or lower" CAA § 112 HAPs and CAA § 129 pollutants levels to those in traditional fuels which the combustion unit is designed to burn. 75 FR 31893. This provision has the illogical outcome that a material might be classified as a legitimate fuel when fired in a coal-fired boiler, but that same material could fail the legitimacy test for another boiler that fires gas or fuel oil as its primary fuel. This provision should either be removed, clarified, or qualified as EPA has done for the hazardous secondary materials.

The third criterion also lacks clarity. For instance, legitimacy is dependent on whether a material "contain[s] contaminants at levels comparable or lower to those in traditional fuels;" however, no definition for the term "contaminants" is included in the proposed rule. EPA uses the terms "constituent" and "contaminant" interchangeably. EPA should be clear about terminology. In addition, the term "comparable" is extremely unclear and subject to a wide range of interpretations. EPA focuses on constituents in materials, yet the concept of "contaminant" under RCRA relates to emissions released to the environment through the use of the material. The CAA shares the goal of RCRA: reduced emissions to the environment. Many of a material's constituents will be destroyed through combustion, making the comparison irrelevant to whether or not there will actually be an emission to the environment. Therefore, equating "contaminant" with "constituent" is not appropriate and comparing constituents in materials to ensure environmental protection is not appropriate.

In the Preamble, EPA indicates that the legitimacy of secondary materials could be questioned if they "contain contaminants *significantly* higher in concentration than those in traditional fuel products." 75 FR 31853 (emphasis added). CIBO supports this interpretation of how a secondary material's legitimacy is assessed based on the fact that it is clearer to determine what is "significantly higher" versus what is merely "comparable." CIBO proposes that EPA define "significantly higher" for the purposes of legitimacy determinations as one or two standard deviations based on an established number of samples. Clear parameters such as this will allow EPA to also establish de minimis threshold levels of hazardous contaminants. See Section XI below.

The third criterion is also unreasonably stringent. CIBO recognizes that the proposed legitimacy criteria parallels EPA's policies to identify legitimate recycling operations and exclude them from regulation as hazardous waste under RCRA. However, EPA's current proposal for nonhazardous secondary materials is actually more stringent than the rules for hazardous secondary materials in one very important area – that of the so-called "toxics-along-for-the-ride".

In March 26, 2007, EPA proposed a hazardous waste rule that included a problematic provision where for a product of a recycling process to avoid classification as a waste, it could not contain significant concentrations of hazardous constituents that are either not found in analogous products or are at significantly elevated levels than in the analogous products. EPA stated the following when explaining the rationale for their proposal

> Today's supplemental proposal is de-regulatory in nature because certain recyclable materials that have been subject to the hazardous waste regulations would no longer be regulated as hazardous waste. The factors to consider for legitimate recycling codify existing principles without increasing regulation. This

> proposal is not intended to bring new wastes into the RCRA regulatory system. By removing unnecessary hazardous waste regulatory controls over certain recycling practices, and by providing more explicit criteria for determining the legitimacy of recycling practices in general, EPA expects that this proposal will encourage the safe, beneficial recycling of hazardous secondary materials. This regulatory initiative is thus consistent with the Agency's longstanding policy of encouraging the recovery and reuse of valuable resources as an alternative to land disposal, while at the same time maintaining protection of human health and the environment."

72 FR 14174

Numerous comments were presented to EPA in response to the March 26, 2007 proposed rule asking EPA to clarify the fact that the fourth legitimacy criteria requiring comparison of part per million concentrations of hazardous constituents in virgin and recycled secondary materials was neither explicit/clear nor encouraging to the recycling of secondary materials. As a result of those comments, in the final rule promulgated on October 30, 2008, EPA added the following very important caveat to the proposed legitimacy factor

> In making a determination that a hazardous secondary material is legitimately recycled, persons must evaluate all factors and consider legitimacy as a whole. If, after careful evaluation of these other considerations, one or both of the factors are not met, then this fact may be an indication that the material is not legitimately recycled. However, the factors in this paragraph do not have to be met for the recycling to be considered legitimate. In evaluating the extent to which these factors are met and in determining whether a process that does not meet one or both of these factors is still legitimate, persons can consider the protectiveness of the storage methods, exposure from toxics in the product, the bioavailability of the toxics in the product, and other relevant considerations.

40 CFR § 260.43(c)(3).

As EPA's explanation demonstrates, EPA recognized that presence of a single hazardous constituent at levels significantly above those found in the analogous products is not reason enough to justify regulating an otherwise legitimate recycling operation as hazardous waste. In addition, it is important to note that even the promulgated criteria as codified only applies to the secondary materials newly eligible for exclusion and not to exclusions currently identified in 40 CFR §§ 260 and 261.

In the proposed nonhazardous secondary material definition, EPA has gone even a step further than it dared propose under the hazardous waste rule – that the secondary material has to have "comparable" levels of § 112/§ 129 pollutants as the traditional fuel or products. For the same reasons EPA gives (see 73 FR 64705-6) for having amended how to interpret its legitimacy criteria for hazardous secondary materials, EPA should likewise revise its proposal for nonhazardous secondary materials.

Furthermore, it becomes even more clear that EPA's approach is unreasonably strict when considering the difference between RCRA and the CAA and the burning of nonhazardous secondary materials for energy recovery. Under RCRA, EPA defines materials as hazardous waste materials that may otherwise be mishandled or improperly land disposed. By defining these materials as hazardous waste and thereby subject to the RCRA Land Disposal Ban regulations, EPA ensures these materials are burned. Previously, this incineration was primarily regulated under the Hazardous Waste Management regulations and permit program. Air emissions from combustion devices are no longer regulated under RCRA now that the MACT program has been implemented. Under the CAA, the burning of these secondary materials will be regulated under one of four categorical standards: (1) the Hazardous Waste Combustor MACT, (2) the Boiler and Process Heater MACT, (3) the Area Source Boiler and Process Heater rule, or (3) the CAA § 129 CISWI rule. Therefore, the concern over categorization as a fuel or as solid waste is greatly diminished or nonexistent, because the activity will be regulated and there is little incentive or opportunity to mismanage these materials in boilers and process heaters. Materials will either be regulated under § 112 or § 129. Therefore, boiler owners/operators will need to comply with reasonable emission limits or work practice standards that will be protective of human health and the environment.

In establishing emissions limits EPA should be careful to consider emission data that includes emissions characteristics from units firing a wide range of materials. Furthermore, EPA should consider fuel variability so that the standard is achievable and that specific limits on potential contaminant concentrations are not needed. If specific limits were established, they would eliminate some materials from use as legitimate alternative energy sources. Such a result would be contrary to stated national goals of achieving a diverse energy portfolio. Similarly, the use of a comparable fuel approach or equivalent concentrations approach is detrimental to the continued and increased useful utilization of byproduct materials that can avoid increased fossil fuel use and the associated environmental impacts. Requiring that the constituent concentrations of these materials not be "significantly higher" than the fossil fuels they replace is misguided.

Many sources burn nonhazardous secondary materials, e.g., primarily on-spec used oil and chemical and polymer manufacturing process residuals in on-site industrial boilers. If this practice were to be stopped due to a desire to avoid the compliance burdens associated with the CISWI rule, sources would likely opt to burn these materials in on-site hazardous waste incinerators instead of boilers. To offset the lost heat value, those sources would have to burn more fossil fuels or other "traditional" fuels in their boilers. Furthermore, under the EPA's proposal, other companies that do not have on-site incinerators would now have to transport materials they had previously burned in their boilers to an off-site incinerator or cement kiln, incurring additional disposal and treatment costs. Such a result is unacceptable. Under EPA's construct, whether a source is legitimately using a material as a fuel turns in part on levels of constituents in the material. For example, EPA notes that the chlorine content is so high in some pulp and paper sludge, that its combustion raises the question of a waste treatment activity (i.e., disposal), not really as recycling for energy recovery. 75 FR 31887. This is just not true, nor is it legally relevant. Sources that produce secondary materials that have heat value can increase their energy efficiency by re-using these materials as fuel. Often, materials are chosen for their constituents that are beneficial to the combustion or manufacturing process; more often, the materials are chosen for extracting their energy value. Any emissions from those materials will be accounted for in the source's emission limits in its permit.

EPA incorrectly attributes to sources a sinister motivation to dispose of harmful constituents through the combustion process. Sources burning secondary materials save energy and reduce production costs by extracting the energy value from those materials. Their motivation is to reduce energy costs wherever possible, while staying within their permit limits. As EPA makes clear several times in the proposed rule, combusting materials with heat value is a form of recycling. Given that NESHAPS prevent the air emission by boilers of undesirable quantities of pollutants, the requirement that the constituents be like traditional fuels is unnecessary.

In lieu of a "comparable contaminant" approach, CIBO supports the approach EPA took in the ANPRM, and describes in the Preamble: materials will be considered comparable if they do not contain contaminants "significantly higher" than the comparable fuel. 75 FR 31854. EPA's more flexible approach in the ANPRM provided environmental safeguards, while allowing the use of valuable secondary materials as fuel. EPA describes this approach in the Preamble

> In determining whether the concentration of contaminants in secondary materials is 'significantly higher,' the Agency stated in the ANPRM that it could use a qualitative evaluation of the potential human health and environmental risks posed. A contaminant concentration could be elevated without posing unacceptable risk, and therefore may not be considered 'significant' for the purposes of determining whether the secondary material is a legitimate fuel.

75 FR 31853 n. 17

If EPA decides to keep a "comparable contaminant" approach, then CIBO would support a interpretation of "comparable" which allows necessary flexibility in comparing secondary materials to fuels, especially because they pose no additional potential human, health and environmental risks.

In the proposed comparable contaminant approach EPA requires the level of contaminants in the secondary material to be compared to "allow any traditional fuel(s) that can be or is burned in the particular type of boiler." 75 FR 31883. This approach inappropriately rewards boilers that burn fuels that release a higher level of contaminants, and unfairly punishes boilers that burn a cleaner fuel. The comparison to the base fuel of the specific boiler also unnecessarily restricts future alternative fuel options, and fails to account for the ability of the source to utilize emission controls. EPA should allow the use of any traditional fuel component for the purpose of comparing contaminant levels with secondary materials. This approach will allow for a more uniform and fair comparison, and enable secondary materials to be more efficiently used, while still providing sufficient environmental protections.

Finally, this comparison of contaminants should be only relative to HAPs, because the rule is intended to define for boilers what materials they can combust and remain in the boiler category. Therefore, the focus should be the pollutants regulated under § 112.

b. *CIBO responses to specific EPA questions*

The proposed language in § 241.3(d)(1)(iii) requires "the nonhazardous secondary material must contain contaminants at levels comparable to those in traditional fuels *which the combustion unit is designed to burn.* Such comparison is to be based on a direct comparison of the contaminant

level in the nonhazardous secondary material to the traditional fuel itself." EPA defines contaminant as "any constituent in nonhazardous secondary materials that will result in emissions of the air pollutant identified in CAA § 112(b) and the nine pollutants listed under CAA § 129(a)(4) when such secondary materials are burned as fuel or used as ingredients, including those constituents that could generate products of incomplete combustion." 75 FR 31893.

EPA solicits comments on (1) whether the list of contaminants should be narrower or broader or look at other lists including RCRA, (2) whether the test should be significantly higher concentrations (rather than comparable) than in traditional fuels, and (3) whether the comparison should be on a total contaminant basis or on a pound per Btu of heat value basis.

In the context of responding to the above questions by EPA, CIBO points out, that as EPA notes the legitimacy criteria EPA is proposing to require for nonhazardous secondary material under Subpart D is more stringent and less flexible than the legitimacy criteria adopted for Subtitle C for hazardous secondary materials. 75 FR 31870 n. 48. Indeed, EPA explains that it codified a legitimate recycling provision at 40 CFR § 260.43 for Subtitle C Hazardous waste materials. As EPA states "[t]his legitimacy provision has two parts. The first part includes two factors that must be considered and met, which are considered the core of the legitimacy factors. The second part of the legitimacy provisions consists of two factors that must be considered, but need not be met because the Agency is aware if situations where a legitimate recycling process exists but may not conform to one or both of these factors . . .." It is unclear why EPA proposes to make criteria to distinguish non-wastes from wastes for nonhazardous secondary materials more rigid and more stringent than the criteria used for hazardous secondary materials. In the proposed rule for nonhazardous solid waste, EPA proposes to require *all* legitimacy criteria be met in order to maintain non-waste status. CIBO believes that EPA should be more flexible and less rigid in applying the legitimacy criteria for nonhazardous materials than for hazardous material and believes that it is unreasonable for EPA to impose such a high hurtle by requiring that nonhazardous secondary materials meet each of the legitimacy criteria in order to be deemed non-waste.

To respond to these specific requests as well as to offer thoughts for improved criteria, CIBO has the following comments:

- First, there is no need to include organic HAPs in the legitimacy test. For example, the chemical and polymer process residues that one CIBO member burns will have levels of organic HAPs such as methanol and ethylene glycol that will not be present in the traditional fuel – in this case, coal. These constituents will be easily and completely destroyed in the high temperature, long residence time boiler. Plus, the proposed Boiler and Process Heater MACT will ensure organic HAPs are properly controlled.

- One CIBO member has streams with elevated levels of one of HAP metal as it is used as a catalyst in the process. For all other metals, including mercury, the stream has far lower levels than are typically present in coal. This one metal could cause the source to conclude the stream is not a fuel. In reality, the electrostatic precipitator on the boiler burning this stream is highly efficient at

removing the metal, and, in fact, a performance test showed about 99 percent removal. Also, once again, the proposed Boiler and Process Heater MACT would ensure the HAP metals are properly controlled. We note that § 129 only lists cadmium, lead, and mercury must be regulated and this particular metal is not one of those listed metals. In this case, nothing would be gained by regulating the burning of this stream under § 129 rather than § 112.

- There is no need to include chlorine in the legitimacy test since both § 129 and § 112 regulate emissions of HCl.

- The RCRA Appendix VIII list of contaminants should not be considered as it is outside of the Clean Air Act regulatory program and there is no legal basis to regulate pollutants other that identified HAPs from boilers and the 12 pollutants from CISWI units. "Contaminant" should be defined as proposed.

- The only contaminant that may need to be considered in the legitimacy test is sulfur because § 129 regulates sulfur dioxide emissions and § 112 does not. Some secondary materials could contain higher levels of sulfur than the traditional fuels – namely coal, biomass, and distillate and residual oils. However, sulfur emissions are already regulated by other CAA and permitting provisions to protect the national ambient air quality standards, so other CAA programs ensure sulfur dioxide emissions are effectively managed.

- Given the wide range of boilers and secondary materials used as fuels and the many possible contaminants that could exist in trace quantities for a given material, CIBO argues that the comparison is best made on a "significantly higher" basis. The significantly higher test will permit the use of materials such as those described above whose constituents may exceed those of traditional fuels, but the use of the material poses no additional risk to human health or the environment. The comparison also should be based on <u>any</u> traditional fuel, not just what the specific unit might be designed to burn. Both of these factors are critical changes that EPA should adopt if EPA insists on applying the legitimacy criteria for nonhazardous materials as proposed.

- EPA solicits comment on whether contaminant comparisons should be based on total level of contaminants or the level of contaminants per Btu of heat value. 75 FR 31883. As a base issue, CIBO does not think it inappropriate to require a legitimacy test on the basis of individual contaminant levels without consideration of the entire characteristics of the secondary material and the alternative options for disposition of the material. It is very likely that a material might have a higher concentration of one or more individual constituents, but lower concentrations of other constituents compared to a traditional fuel. This does not mean a decision regarding consideration as a solid waste is clearly a yes or no case, but rather that the overall characteristics need to be considered qualitatively. There is a high level of variability in any type of traditional fuel or secondary material used as fuel; these differences can be due to inherent property variability, sampling variability, analytical variability, or other issues. Any solid waste determination

methodology which requires a comparison should allow for such variability in a reasonable manner. CIBO supports the method that looks at constituent concentrations (e.g., percent by weight or ppm by weight) as a reasonable approach that limits the impact of variability, whereas using lb/MMBtu compounds the impacts of variability. Since either the Boiler/Process Heater MACT or CISWI rule will adequately limit emissions from combustion of the secondary materials, there is no justification for evaluating contaminant comparisons on a heating value basis.

CIBO urges EPA to consider making substantial improvements and revisions to the legitimacy criteria as highlighted above. Failure to make substantial revisions will result in industry's inability to utilize the criteria to make non-waste determinations. Simply put, without more flexible and reasonable legitimacy criteria, many of the materials EPA states in the Preamble that it believes are legitimate fuels, are unlikely to pass the high hurdles EPA is imposing. This will lead to less optimal use of valuable fuel and material resources, higher costs for businesses to dispose of valuable fuel commodities and a failure to meet RCRA goals for minimizing waste generation and maximize re-use of valuable commodities.

IX. EPA's Alternative Approach for determining materials to be fuels and not solid waste will further discourage alternative energy sources and EPA should not finalize those provisions.

The alternative approach in the Proposed Rule (75 FR 31885) would likely greatly inhibit the use of valuable, energy-rich materials as fuels by boilers. For that reason alone, CIBO opposes adoption of an even more restrictive approach than the basic approach outlined in the proposal. Implementing this alternative approach would only amplify the wasted resources and the false benefits of subjecting boilers burning secondary material fuels to the incinerator rule requirements. Under the alternative approach, traditional fuels that have been burned historically as fuels and managed as valuable products would not be solid wastes. In addition, nonhazardous secondary materials used as fuels or ingredients are excluded from the definition of solid waste if they both remain within the control of the generator and meet the legitimacy criteria.

Of concern to CIBO is that all other nonhazardous secondary materials burned as a fuel or used as an ingredient in the combustion process would be classified as solid wastes subject to the CAA § 129 standards if burned in a combustion unit. Also, all materials that result from processing of discarded nonhazardous secondary materials would be classified as solid wastes. As with the proposed approach, wastes would include those secondary materials used as a fuel or ingredient not passing the legitimacy criteria, and those secondary materials used as a fuel that are managed outside the control of the generator. This solid waste designation would include materials, such as secondary wood products combusted on-site, coal refuse, and tires processed into TDF, on-spec used oil, and all secondary materials used as ingredients managed outside the control of the generator in combustion units. There would be no opportunity to demonstrate otherwise through a petition process.

X. State and federal overlapping authority.

A. The rule should not interfere with established State programs that define materials to meet important goals including encouraging alternative energy sources, environmental protection, and beneficial uses.

EPA notes that States have developed solid waste programs that may not be consistent with EPA's proposed definitions and seeks comment on whether EPA should rely on State determinations of the meaning of waste. EPA makes clear throughout the proposed rule that it does not intend to interfere with longstanding State authority over the definition and regulation of solid waste. For example, regarding tires, EPA noted: "because states typically regulate these programs under their state solid waste authorities, it is not the Agency's intent to undercut the state's authority in this area." 75 FR 31853. CIBO supports that approach, which could be adopted with regard only to materials with long-established state regulatory approaches.

In the case of States heavily invested in the elimination of coal refuse, for example, the continuing treatment of boilers as presently categorized will be important to accomplishing the environmental benefits of such programs. The coal refuse elimination programs are also interrelated with State alternative energy or renewable energy programs in some States. EPA acknowledges that its rule may interfere with those efforts. By providing a State role in determining the status of particular materials, EPA would resolve the contradictions between established State programs and the proposed federal program.

Pennsylvania law, for example, was amended based on what had occurred at the Federal level, resulting in changed definitions of residual and hazardous waste (two types of soild wastes). The following points are related to Pennsylvania's solid waste and coal mine regulatory program:

- Under Pennsylvania Law, the definition of solid waste includes residual waste and hazardous waste. The definition of residual waste and hazardous waste does not include "coal refuse" as define in Pennsylvania's Coal Refuse Disposal Control Act (52 PA. CONS. STAT. §§ 30.51-30.101).

- In Pennsylvania, the remining and reprocessing of coal refuse and its disposal is pursuant to Pennsylvania's regulatory program for coal mining. OSM delegated primary jurisdiction of coal mining to Pennsylvania under SMCRA. A coal refuse site that maybe eligible for funding (at some point in time) under the AML program if remined and processed as a fuel is covered under Pennsylvania's coal mining regulatory program, not the solid waste program.

EPA regulations should in no way interfere with State and local laws involving beneficial use determinations, renewable portfolio standards, and other programs developed to address energy independence and prevailing State environmental concerns. For example, where fuels are co-fired, some states have adopted requirements for the composition of the co-fired fuels. Federal regulations should address only the CAA issue, and expressly not affect State determinations.

Use of secondary materials as fuel for energy recovery is a beneficial reuse and has other environmental benefits beyond reuse of the material. As noted by EPA in the Preamble, "The

use of "secondary materials, such as use as a fuel in industrial processes may also result in other benefits. These may include reduced fuel imports, reducing negative environmental impacts caused by previous dumping (e.g., tires), and reduced methane gas generation from landfills." 75 FR 31849. States have advanced beneficial use programs that should not be curtailed by this rule. One approach would be to exclude from the definition discarded materials that are then put to a "beneficial use." 75 FR 31858.

B. Legitimacy criteria imposed here could interfere with State determinations regarding beneficial use that are longstanding and depended on by sources and States.

In summarizing the ANPR, EPA highlights the issue related to materials for which state beneficial use determinations have been made. EPA requested comment on whether to consider secondary materials that receive a state beneficial use determination for use as a fuel or as an ingredient not a solid waste, also not be considered a solid waste under federal law. 75 FR 31855. EPA also highlights comments from state agencies on this critical issue. 75 FR 31857-8. However EPA glosses over this issue by stating that EPA is "articulating the narrow definition of which nonhazardous secondary materials are or are not solid waste when used as fuel for energy recovery or as ingredients in combustion units." 75 FR 31888. CIBO would like to point out, however, that use of materials for energy recovery is very common and by imposing very strict legitimacy criteria for nonhazardous secondary materials and by presuming that materials that fail to meet this criteria are wastes, even if these materials have never been discarded, these criteria are at odds with numerous determinations that have been made.

It is very important that EPA state with clarity that it will not alter determinations previously made for hazardous secondary materials. However, the criteria EPA imposes for nonhazardous secondary materials to be fuel are much more stringent than the basis for many many previous determinations that have been made for hazardous materials that are combusted. Thus, this approach may call into question practices approved and sanctioned under the Subtitle C beneficial reuse programs. Many materials which have been determined and designated to be non-waste for Subtitle C hazardous materials, would not meet EPA's legitimacy criteria for nonhazardous solid waste.

EPA requests comment on whether the agency would rely on a determination through a states beneficial use program that secondary materials are or are not solid waste. 75 FR 31888. CIBO believes it is critical that EPA rely on beneficial use determinations and state beneficial use programs and not undermine state authority for past and future determinations. Without this, a tremendous number of inconsistencies and problems will be created. States can take into account the current federal legal rationale for defining solid waste highlighted at 75 FR 31889 that a secondary material that has been discarded is a solid waste and apply EPA's legitimacy criteria to future determinations. EPA should also state with clarity that past determinations that have been determined to be beneficial reuse are grandfathered and not altered by this rule, particularly where materials have not been determined to be discarded. We urge EPA to address this issue in a manner that preserves previous determinations.

C. State regulatory agency oversight.

It is important to permitted sources that EPA require States to provide in their Title V programs knowledgeable CAA staff to implement this rule, and not require sources to separately seek a determination or assistance from RCRA staff regarding their CAA permits.

In addition, EPA should make it possible for sources to invoke the revised RCRA definitions immediately upon their becoming effective for federal purposes. Sources should not be required to await State action adopting the revised regulations before they may rely on them in CAA permits. The goal of the implementing provisions should be to cause as little disruption as possible in the ongoing operations of facilities that intend to rely on exclusions to cover materials that are used as fuels or ingredients.

XI. De minimis exemption.

EPA states that it will not address the issue of a de minimis exemption in this rule. 75 FR 31873. Even if EPA addresses de minimis concerns in another rule (which is not certain at this point), this rule should exempt from the definition of solid waste de minimis amounts of materials that could either accidentally or purposefully be put into the boiler, but that have a negligible effect on the unit's air emissions. This concept is particularly important for categories of fuels that are broader in potential scope. For example, sources burning construction debris should have assurances through a de minimis exemption that the definition of solid waste will be applied fairly. While facilities burning construction and demolition debris today have screening and product specifications vendors must meet, it is impossible from a practical standpoint to ensure that every trace of potential waste materials is removed prior to combustion. Dependable boiler operations require thorough screening of materials that enter the boiler, so any potential comingling of wastes is already minimized. A de minimis exemption is a standard provision provided in other CAA regulations and this rule should be consistent with that precedent.

The U.S. Court of Appeals for the District of Columbia Circuit has specifically upheld the validity of de minimis exemptions under the CAA.[15] Noting that "the law does not concern itself with trifling matters," the court explained that "categorical exemptions from the requirements of a statute may be permissible 'as an exercise of agency power, inherent in most statutory schemes, to overlook circumstances that in context may fairly be considered de minimis.'"[16] In upholding a de minimis exemption under CERCLA, the court acknowledged that an exemption cannot be contrary to the express terms of a statute, but that it may be allowed where following the precise terms of the statute would lead to "absurd or futile results" or where a failure to permit the exemption is "contrary to the primary legislative goal."[17] While a de minimis determination depends on the assessment of particular circumstances, the court has stated that the CAA permits such a determination under appropriate circumstances.[18]

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[15] *Environmental Defense Fund, Inc. v. EPA*, 82 F.3d 451, 466 (D.C. Cir. 1996).
[16] *Id.* (quoting *Alabama Power Co. v. Costle*, 636 F.2d 323, 360 (D.C. Cir. 1979).
[17] *State of Ohio v. EPA*, 997 F.2d 1520, 1535 (D.C. Cir. 1993) (citing *Public Citizen v. Young*, 831 F.2d 1108,1122 (D.C. Cir. 1987)).
[18] *Alabama Power*, 636 F.2d at 360.

XII. Lifecycle Management of Materials.

EPA "is pursuing an approach to materials management that employs the concepts of life cycle assessment and full cost accounting." 75 FR 31849. EPA defines "life cycle assessment" as "a system-wide analytical technique for assessing the environmental (and sometimes economic) effects of a product, process, or activity across all life stages;" and "full cost accounting" as an accounting system that incorporates economic, environmental, health, and social costs of a product, action, or decision. 75 FR 31849 n. 6,7.

Life cycle analysis for handling of byproduct materials would be a very time consuming and burdensome process. While it might be of value for EPA to consider example cases of this in support of their rulemaking, it would be unjustifiably burdensome to impose such a requirement on sources utilizing byproduct materials as fuel or ingredient.

In general, use of secondary materials as fuel at the location they are generated can be efficiently integrated within processes and systems, leading to reduced energy, environmental, and cost impacts of materials transfer to another facility. Preference can be given to materials management in an integrated or close-coupled manner relative to valuing materials as fuel or ingredient rather than as wastes, but exceptions definitely exist. The incentive to utilize available secondary materials as fuel and/or ingredient increases with higher fuel and power energy costs as well as in cases where very competitive markets exist for products and all economically viable incremental opportunities need to be utilized in order to remain in business and retain jobs.

XIII. Timing of Boiler MACT role and CISWI standards.

EPA has simultaneously proposed this rule and standards for boilers, area sources and CISWI units. However, based on the final rule determining what is or is not a solid waste, sources will likely adjust their plan for use of alternative fuels that may be redefined as wastes in the final rule.

CIBO members are concerned that the true composition of the source categories for floor setting in the standards rules will not be known until this rule is finalized. At that point, CIBO members view it as an unavoidable outcome that EPA will need to recalculate floors for the air emission standards rules. If that should happen, then the compliance deadlines for those rules, and the effectiveness date for this rule, will be in question. EPA should make clear in the final rule what those dates will be and how it expects the rules to interrelate from a compliance perspective. Facilities need to know when a material they currently burn as a fuel must be discontinued if they decide that the hurdle to showing it is a fuel rather than a waste is too high despite its fuel value. That date should be the compliance date of the air emissions standard rule for the source.

XIV. Units Excluded from CISWI Applicability.

In the Preamble, EPA references the solid waste incineration unit exclusions specified in the CAA. EPA also needs to keep in mind the existing CISWI rule applicability exemptions listed in 60.2020 and 60.2555, which remain in effect. As EPA notes, because the CISWI Rule was not vacated, its requirements remain in effect. Therefore, those exemptions continue to apply.

Additionally, any and all process vent streams, process off-gases, and other similar gaseous streams typically combusted in boilers, process heaters, and other combustion devices are not contained and by definition are not solid waste. Therefore, they cannot be included in § 129 applicability. 75 FR 31867. Finally, EPA's solid waste rule should in no way affect the exemptions for qualifying facilities and other facilities under CAA § 129(g)(l).

XV. Petition Process.

EPA proposes to establish several processes for petitioning EPA for determinations. CIBO supports these concepts as potentially helpful to increase compliance certainty for sources.

A. The process for making a "discard" determination should be provided.

CIBO supports EPA's proposed administrative process whereby persons can receive a formal determination that a nonhazardous secondary material has not been discarded and is thus not a solid waste. See 75 FR 31879. This non-waste determination process is necessary as it provides sources with certainty and serves as a means to avoid jeopardizing compliance. CIBO recommends amendments that will facilitate the proposed process.

First, CIBO agrees with EPA that states should be allowed to make case-specific determinations without EPA approval (75 FR 31880). States have the authority to make such determinations under RCRA Subtitle D. Furthermore, many states have previously established programs and are capable of making the determination of whether a nonhazardous secondary material is or is not a solid waste. Considering this, EPA should explicitly provide in the final rule that states with established programs can make such determinations. EPA should also provide a means for states without established programs to gain approval to make determinations.

Second, EPA should include a specific timeline for processing applications under the non-waste determination process. EPA provides in the proposed rule that persons interested in obtaining a non-waste determination must submit an application to the Regional Administrator detailing the five criteria. 75 FR 31880. EPA provides in proposed § 241.1(c)(ii) that the Regional Administrator will "evaluate the application and issue a draft notice tentatively granting or denying the application;" however, there is no mention of when the initial draft notice must be issued. 75 FR 31880. Proposed § 241.1(c)(iii) includes a 30 day timeline for public comment on the draft notice; however, with no timeline established for when the initial draft notice must be issued, the process could drag on unreasonably. EPA should establish a deadline for EPA to issue the notice.

Finally, CIBO agrees with EPA that states should be able to submit non-waste determinations "on behalf of the petitioner." 75 FR 31880. However, CIBO supports allowing trade groups and/or coalitions to also petition on behalf of their constituents to gain approval for broadly used secondary materials. The final rule should allow the approval of non-waste determinations applicable at a state-wide level for widely used materials. Such an approach could avoid a waste of federal and state regulatory resources that would occur in the processing of several petitions for the same secondary material.

B. EPA also seeks comment on whether a similar process should be implemented to permit sources to seek a determination on whether a material should be considered a traditional fuel.

EPA should amend the proposed rule to include an administrative process whereby persons or facilities can receive a formal determination from EPA whether the fuel they burn qualifies as a traditional fuel. There is currently no method in the proposed rule for a person or facility to make the determination that they are burning a traditional fuel. EPA provides a list of what it believes are traditional fuels, "based on how the materials have historically been managed as a valuable fuel product and not a waste." 75 FR 31856. Such a definition focuses strictly on historical use and fails to acknowledge technical advances that could bring new sources of energy.

CIBO agrees with EPA that the future holds even more uncertainty as to the definition. Specifically, with further advances in technology, changes in policy, and changes in the energy market over time, there may be additional secondary materials that become economically viable as "traditional" fuels. 75 FR 31856. CIBO agrees with EPA that this proposed rule should "be flexible to account for increasing use and changes in commodities, technologies, markets, and fuel prices." 75 FR 31856. Considering this, EPA should provide an administrative petition process where persons and facilities can request a formal determination whether the fuel that they burn qualifies as a "traditional" fuel. If such a petition process for determining traditional fuels is instituted, the regulations should include reasonable and specific deadline by which EPA's must make a decision, something currently lacking in the "non-waste" determination petition process

C. EPA seeks comment on whether to permit States to petition on behalf of entities within their borders.

As stated above, CIBO supports a final rule that allows states to make case-specific non-waste determinations without EPA approval. 75 FR 31880. Furthermore, CIBO supports a petition process where trade groups or coalitions are also able to petition on behalf of their constituents to gain approval for broadly used secondary materials so that the existing commerce around the use of these materials as fuels is not disrupted. If EPA adopts this approach, it will avoid the needless waste of resources that would inevitably take place when EPA or the state consider petitions for the same secondary material by several different persons or facilities. Considering this, EPA should explicitly provide in the final rule a means for states, trade groups, and coalitions to gain approval to make non-waste determinations under a petition process and EPA should allow petitions to be applicable across a class of secondary materials when appropriate.